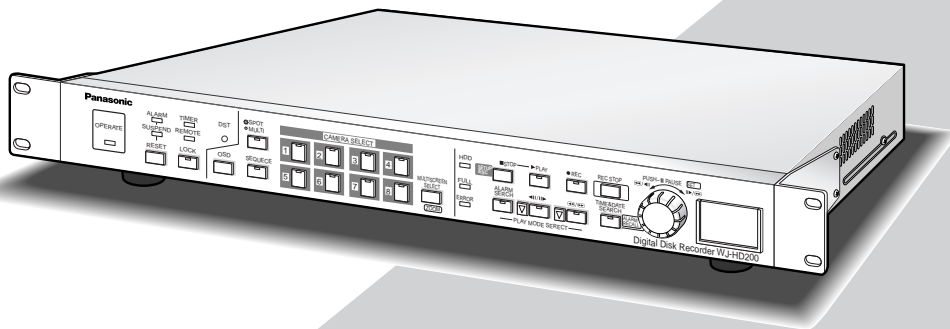


Panasonic

Digital Disk Recorder Operating Instructions

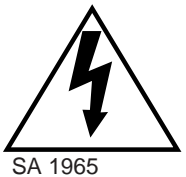
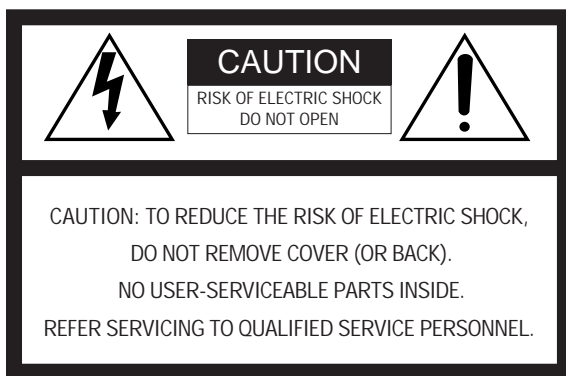
Model No. **WJ-HD200**



Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

Caution:

Before attempting to connect or operate this product, please read the label on the bottom.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Power disconnection. Unit with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. The power cord is the main power disconnect for all units.

For U.S.A.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The serial number of this product may be found on the bottom of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____ WJ-HD200

Serial No. _____

WARNING: To prevent fire or electric shock hazard, do not expose this appliance to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not use near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the points where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-overs.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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PREFACE

The Digital Disk Recorder WJ-HD200 is designed for use within a surveillance system and is a combination unit of a hard disk recorder and 8-input video multiplexer. It records picture and audio data selectively almost up to 10 000 hours in the extended mode on a field basis. Besides

recording and playback, the WJ-HD200 features versatile interfaces with the network and RS485 communications. Interactive menus are provided for recording setup, alarm setup, network setup, and so forth.

FEATURES

- **A built-in 120 GB HDD**
- **Viewing Live Pictures:**
 - Single channel live (CH 1-8)
 - Quad-split live, Multi-split live
 - Single live zoomed electrically
 - Sequential live
- **Recording mode:**
 - Manual recording
 - Timer recording
 - Alarm-event recording
 - Power-on recording
 - Recording quality and rate selectable
- **Playback:**
 - Single channel playback
 - Step-search playback
 - Skip-search playback
 - Time & Data search
 - Quad playback
 - Single playback zoomed electrically
- **Remote control**
 - Serial port control
 - Alarm sensor inputs
- **Network Access**
 - Viewing live images
 - Viewing playback images
 - Controlling cameras
 - Controlling recorder
- **Miscellaneous:**
 - Password protected buttons
 - Alarm list search

Trademarks

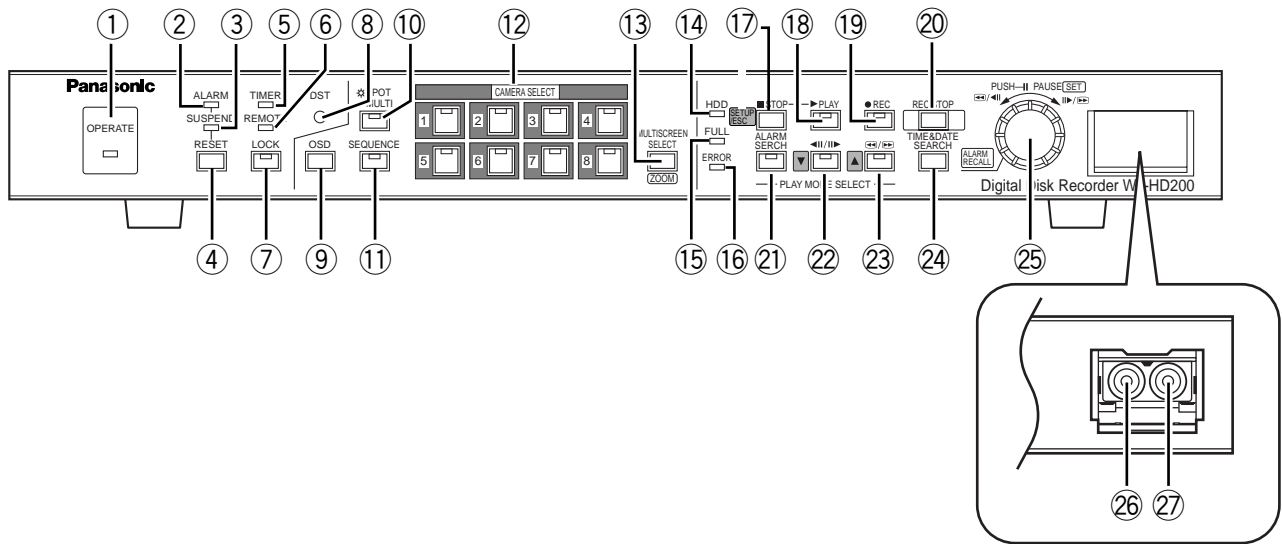
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PRECAUTIONS

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Avoid condensation on the surface of the hard disk. Wait until the dew evaporates if any of the following case takes place.
 - The recorder is moved to a place significantly different in temperature or humidity.
 - The recorder is moved out of an air-conditioned room.
 - The recorder is placed in an extremely humid place.
 - The recorder is placed in a room where a heater has just been turned on.
- Consumable parts
 - Contact your dealer for replacement of the following parts when the time comes:
 - Built-in hard disk needs replacement after around 30 000 hours of operation.
 - Cooling fan also needs replacement after around 30 000 hours of operation.
 - Backup battery has a lifetime of around five (5) years in an ordinary environment.
- Do not block the ventilation opening or slots on the cover.
 - To prevent the appliance from overheating, place it at least 5 cm (2 inches) away from the wall.
- Do not drop metallic parts through slots.
 - This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care.
 - Do not strike or shake, as this may damage the appliance.
- Fully charge up the backup battery.
 - Keep the appliance turned on for at least 48 hours to recharge the backup battery. This procedure is necessary when using the appliance for the first time or after it has been unplugged for a long time from the AC outlet. Insufficient charging of the battery may cause erasure of settings if the AC power supply should fail.
- We recommend that you note down your settings and retain them. Power or battery failure may erase settings you entered.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas.
- Do not use strong or abrasive detergents when cleaning the appliance body.
 - Use a dry cloth to clean the appliance when it is dirty.
 - When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.
 - Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperatures within +5 °C to +45 °C (41 °F to 113 °F) and a humidity below 90 %.
 - The input power source for this appliance is 120 V AC 60 Hz.
- It might occur some kind of malfunction of "RECORD" or "PLAY", or "damage or defect of recorded data", due to failure or trouble of machine. Any kind of consequent damage or loss arising from such problem is not subject of warranty.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

■ Front View



① Operate Indicator (OPERATE)

Lights up when the power of the WJ-HD200 Digital Disk Recorder is turned on.

② Alarm Indicator (ALARM)

Blinks when an alarm condition exists. It changes to a steady light when the activated alarm is reset after elapsing the auto-reset time.
To turn the indicator off, press the ALARM RESET button.

③ Alarm Suspension Indicator (SUSPEND)

Lights up when the alarm suspension mode is selected.

④ Alarm Reset Button (RESET)

Pressing this button cancels an activated alarm, and return the system back to the conditions before the alarm was activated.

⑤ Timer Indicator (TIMER)

Lights up when the internal timer works after setting the TIMER to INT (internal) in the menu setup. It blinks while recording during the specified start and end time.

⑥ Remote Indicator (REMOTE)

Lights up when the recorder is remotely controlled via the serial port or 10BASE-T/100BASE-T port on the rear panel.

⑦ Lock Button (LOCK)

Holding down the button for 2 seconds will enable or disable the button lock function. While locked, the buttons at the front panel are not operable and the LED in the LOCK button lights up.

⑧ Daylight Saving Time (DST)

The button is recessed inside the front panel opening. Pressing this button shifts the internal clock to the summer time or vice versa.

⑨ On Screen Display Button (OSD)

Toggles the “on screen display” (OSD) on and off. You can eliminate OSD when it veils the portion on the monitor you wish to observe. OSD includes the time and date, alarm status, camera title, and recorder status. The status information is displayed only on the multi-screen monitor.

⑩ Monitor Selection Button (SPOT/MULTI)

Toggles the monitor selection between the spot monitor and multi-screen monitor you wish to control. When the spot monitor is selected, the LED in the button lights up.

⑪ Sequence Button (SEQUENCE)

Runs the assigned sequence on the selected monitor for the specified duration. Pressing this button pauses the sequence, or restarts the paused sequence. The LED in the button lights up when running, or blinks when pausing.

⑫ Camera Selection Button (CAMERA SELECT)

Pressing a button selects the input live image, or the recorded image of the specified input. The LED in the button indicates the status of the camera input as follows.

Green: The input displayed on the monitor is not being recorded, but is a live or playback image.

Yellow: The input is displayed on the monitor, and is recorded on the hard disk.

Orange: The input is not displayed on the monitor, but is recorded on the hard disk.

Blink Yellow: The input channel has an activated alarm and it is in alarm recording mode.

Blink Green: The input channel has an activated alarm but it is not recorded.

These buttons are used for password input to release the button lock function.

⑬ Multi-screen Selection Button (MULTISCREEN SELECT/ZOOM)

Selects the multi-screen pattern to be displayed on the multi-screen monitor. The pattern changes every time the button is pressed depending on the setup for MULTI SEL MODE.

When ALL is selected:

Pattern 4A (comprising input 1, 2, 3, 4) → Pattern 4B (5, 6, 7, 8) → Pattern 9 (1-8) → Pattern 4A

When QUAD ONLY is selected:

Pattern 4A → Pattern 4B → Pattern 4A

Holding down this button for 2 seconds electronically enlarges the specified area when a single picture is displayed on the multi-screen monitor.

⑭ HDD Access Indicator (HDD)

Lights up when the HDD is accessed.

⑮ FULL Indicator (FULL)

Lights up when the available disk space has lowered than the percentage specified for HDD FULL and when STOP is set for DISK END MODE.

⑯ Error indicator (ERROR)

Blink Yellow: The SMART reports that usable time of the HDD is nearing end.

Blink Red: HDD error, HDD removed automatically, or thermal error.

⑰ Stop and Setup/Escape Button (STOP SETUP/ESC)

Pressing this button except in the menu setup or recording will stop the playback.

Holding down this button for 2 seconds calls up setup menus, or escapes from the setup.

In the setup menu, pressing this button will go one step back to the previous selection.

⑱ Playback Button (▶PLAY)

Pressing this button starts the playback. The LED in the button lights up while playing back, and it blinks while pausing the playback or searching the record.

⑲ Recording Button (●REC)

Pressing this button manually starts recording. The LED in the button lights up during recording mode. Recording starts when this button is pressed manually, when the preset time for the internal timer comes, or when an alarm sensor is activated.

⑳ Recording Stop button (REC STOP)

Pressing the button for two seconds can stop recording. Recording in any mode is stopped exclusively with this button.

From ㉑ to ㉔ are playback mode selection (PLAY MODE SELECT) buttons.

㉑ Alarm Search Button (ALARM SEARCH)

Pressing this button enables the JogDial to retrieve the beginning image of the desired alarm record. Press the [PLAY] button after searching the alarm record to play it back.

㉒ Step Playback & Down Button (◀II / II▶ ▼)

Pressing this button allows the JogDial to advance pictures field by field for minute searching.

In the menu setup, pressing this button moves the cursor downward.

㉓ Skip Playback & Up Button (◀◀ / ▶▶ ▲)

Pressing this button allows the JogDial to skip some picture fields for roughly searching.

In the menu setup, pressing this button moves the cursor upward.

㉔ Time and Date Search Button (TIME & DATE SEARCH)

Pressing this button opens the time & date search window. Specify the time and date of the desired record rotating and pressing the JogDial, then press the [PLAY] button to start playback.

㉕ JogDial (PUSH – II PAUSE ◀◀ / ◀II ▶▶ / II▶ SET ALARM RECALL)

When playing back in normal speed (PLAY):

Pressing the JogDial pauses or restarts playback.

When operating alarm search (ALARM SEARCH):

Rotating the JogDial will access the beginning field image of the next later or next older alarm record.

Holding down the JogDial for 2 seconds will jump to the newest record at the disk end in forward playback, or to the oldest end in reversal playback.

When playing back in step mode (STEP):

Rotating the JogDial one click clockwise or counter-clockwise will access the next later or next older image field. A minute search for the desired field is available.

When playing back in skip mode (SKIP):

Rotating the JogDial changes the skip playback speed and directions. The more turns you rotate the JogDial, the faster the pictures will change. A rough search for the desired field is available.

Holding down the JogDial for 2 seconds will jump to the newest record at the disk end in forward playback, or to the oldest end in reversal playback.

When pausing the playback:

Holding down the JogDial for 2 seconds will return to the live image display, and alarm list will appear.

While opening the time and date search window (TIME & DATE SEARCH):

Pressing the JogDial moves the cursor to the next position in the window.

Rotating the JogDial increases or decreases the parameter.

After specifying the date and time, press the [PLAY] button to start playback.

When operating alarm recall (ALARM RECALL):

Holding down the JogDial for two seconds will open or close the alarm event log on the monitor.

Rotating the JogDial will scroll up or down the log page.

After selecting an alarm event with [▲] or [▼] button, press the [PLAY] button to start playing back the selected alarm record.

When operating setup menus:

Pressing the JogDial validates the selected parameter and moves the cursor to the next position.

Rotating the JogDial increases or decreases the parameter.

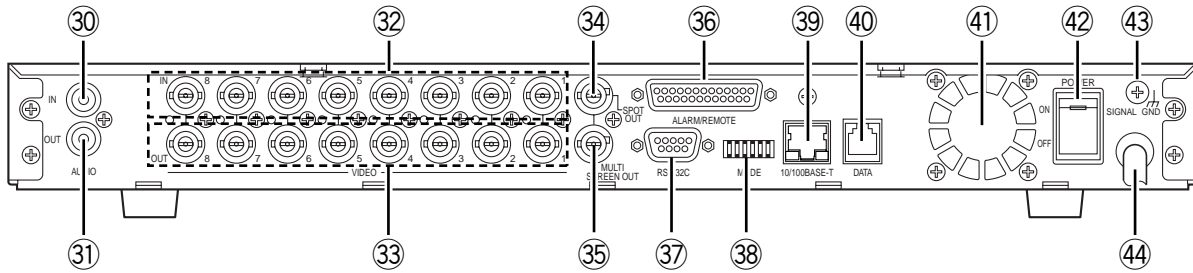
②⑥ **Audio Out**

An RCA standard type jack supplies audio output signal that is identical to the AUDIO OUT terminal on the rear panel.

②⑦ **Video Out (VIDEO OUT)**

An RCA standard type jack supplies video output signal that is identical to the MULTI OUT terminal on the rear panel.

■ Rear View



③① Audio Input Connector (AUDIO IN)

An RCA standard jack accepts an unbalanced –10 dBV, 10 k Ω line input audio signal supplied from an external device.

③① Audio Output Connector (AUDIO OUT)

An RCA standard jack supplies an unbalanced –10 dBV, 600 Ω line output audio signal to an external device.

③② Video Input Connector (VIDEO IN 1-8)

This BNC accepts a video signal supplied from a camera. A 75 Ω termination is made unless the video output terminal is connected.

③③ Video Output Connector (VIDEO OUT 1-8)

This BNC supplies a video signal looped through the video input terminal.

③④ Spot Output Connector (SPOT OUT)

This BNC supplies a full-screen live image signal to the spot monitor while recording or not recording. No play-back or split image, setup menu, or OSD information is supplied via this connector.

③⑤ Multi-screen Output Connector (MULTISCREEN OUT)

This BNC provides the multi-screen monitor with the following video.

- Live image: single spot, multi-split spot, single sequence, quad-split sequence
- Playback image: single spot, multi-screen spot
- OSD information: camera title, time and date, recorder status, alarm status

The menu setup windows are also provided via this BNC.

③⑥ Alarm/Remote Port (ALARM/REMOTE)

This port accepts the alarm inputs 1 – 8, and remote controls while supplying status outputs. See ALARM PORT CONNECTIONS for details.

③⑦ RS232C Port (RS-232C)

This 9-pin port is used to communicate with the personal computer when controlling the recorder, or updating the firmware installed in the recorder. See CONNECTIONS for cable wiring, and APPENDIX for protocol and commands.

③⑧ Mode Setup DIP Switch (MODE)

A 6-bit switch is used for such system setups as disk formatting, PSD chain termination, and so forth. See DIP SW SETTING for details.

③⑨ 10Base-T/100Base-T (10/100BASE-T)

This port is used to exchange control data with Ethernet via an Ethernet Hub.

③⑩ Data Port (DATA)

This port is used to communicate with the external devices compatible with the PSD (Panasonic Security Data) protocol based on RS485.

③⑪ Cooling Fan

Prevents the temperature of the recorder from rising. Do not block the ventilation openings.

③⑫ Power Switch (POWER ON OFF)

This switch turns the power of the recorder on and off.

③⑬ Signal Ground Terminal (SIGNAL GND)

③⑭ Power Cord

Is connected to an AC outlet.

INSTALLATION

● Warning

This installation should be made by qualified service personnel or system installers.

● Notes

Places to avoid

- Direct exposure to sunlight or near a source of heat such as a radiator.
- Very dirty and dusty places. Places subject to strong vibrations.
- Near a transformer, dimmer, video player, radio or monitor. These may cause humming noise, etc.

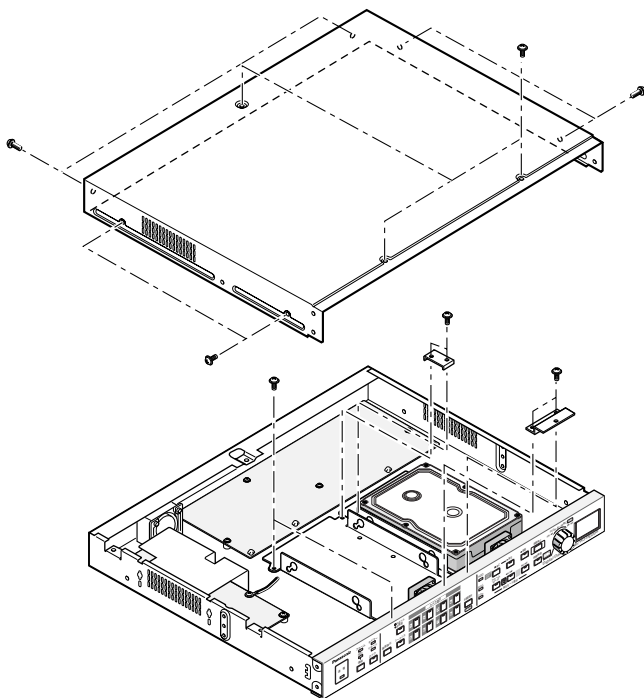
About mounting

- Do not block the ventilation openings or slots in the cover to prevent the appliance from overheating.
- Always keep the temperature in the rack within +45°C (113°F).
- Secure the rear of the appliance to the rack with additional mounting brackets (procured locally), if the rack is subject to vibration.

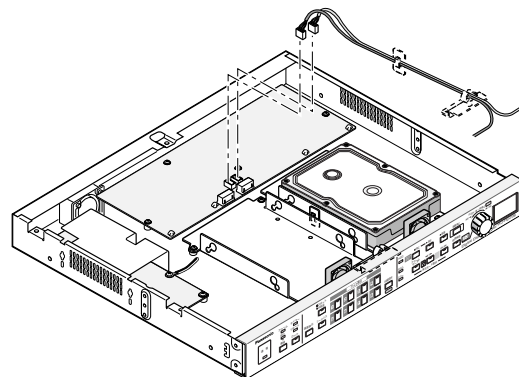
■ Installing the Optional HDD

There is an extension space inside the recorder to mount the optional HDD unit, besides the one unit pre-installed when shipped.

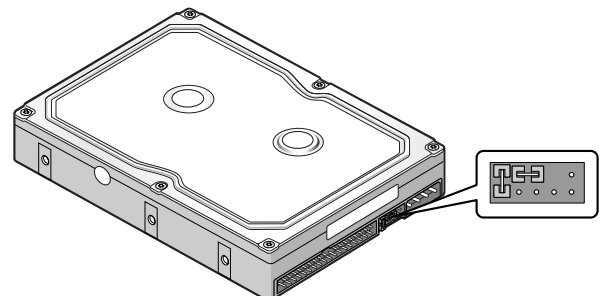
1. Unplug the power cord from the AC outlet.
2. Remove nine screws to detach the top cover.
You will see the additional HDD bracket adjacent to the pre-installed HDD unit.
3. Remove six screws fastening the additional bracket.



4. Disconnect the two fan cord connectors on the main board, and unfasten the cord clamps to separate the cords individually. Then, remove the bracket from the chassis.

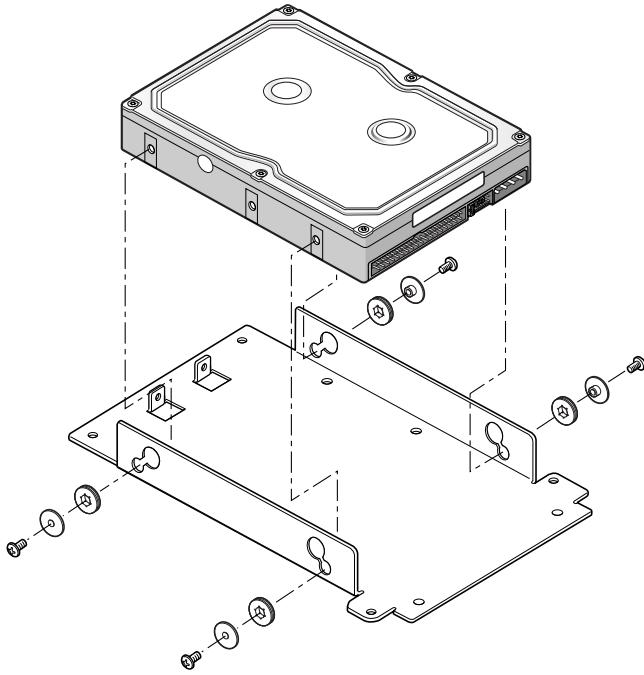


5. Prepare the optional HDD unit.
5-1 Attach the supplied serial number label and transparent seal on the HDD unit surface as illustrated.
5-2 Set the jumper connectors as illustrated.



Note: Pin connector settings may differ depending on the HDD unit. Refer to INSTRUCTIONS included with the HDD for master-slave connector settings.

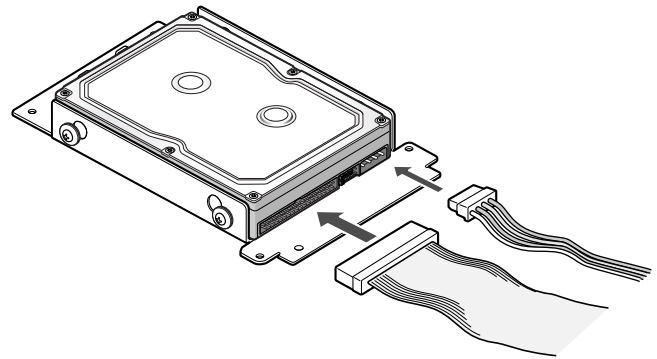
6. Assemble the optional HDD unit onto the bracket using the absorbers, sleeves, and screws provided with the recorder.



7. Place the HDD unit on the chassis, and fix it with six screws.

8. Restore the fan cords and connectors as before.

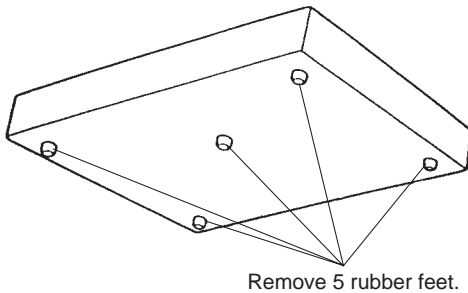
9. Connect the power cable and flat cable on the rear of the HDD unit.



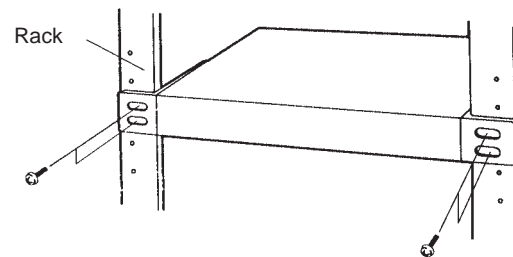
10. Fix the top cover to the recorder with nine screws.

■ Mounting in the Rack

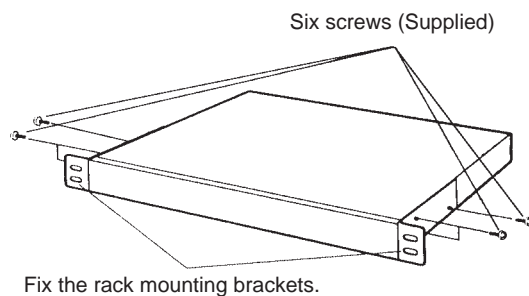
1. Remove the four rubber feet by removing the five screws on the bottom of the unit.



3. Install the unit with the rack mounting brackets in the rack by using four screws (not included).



2. Place the rack mounting brackets on both sides of the unit and tighten with the six supplied screws (M3 x10).



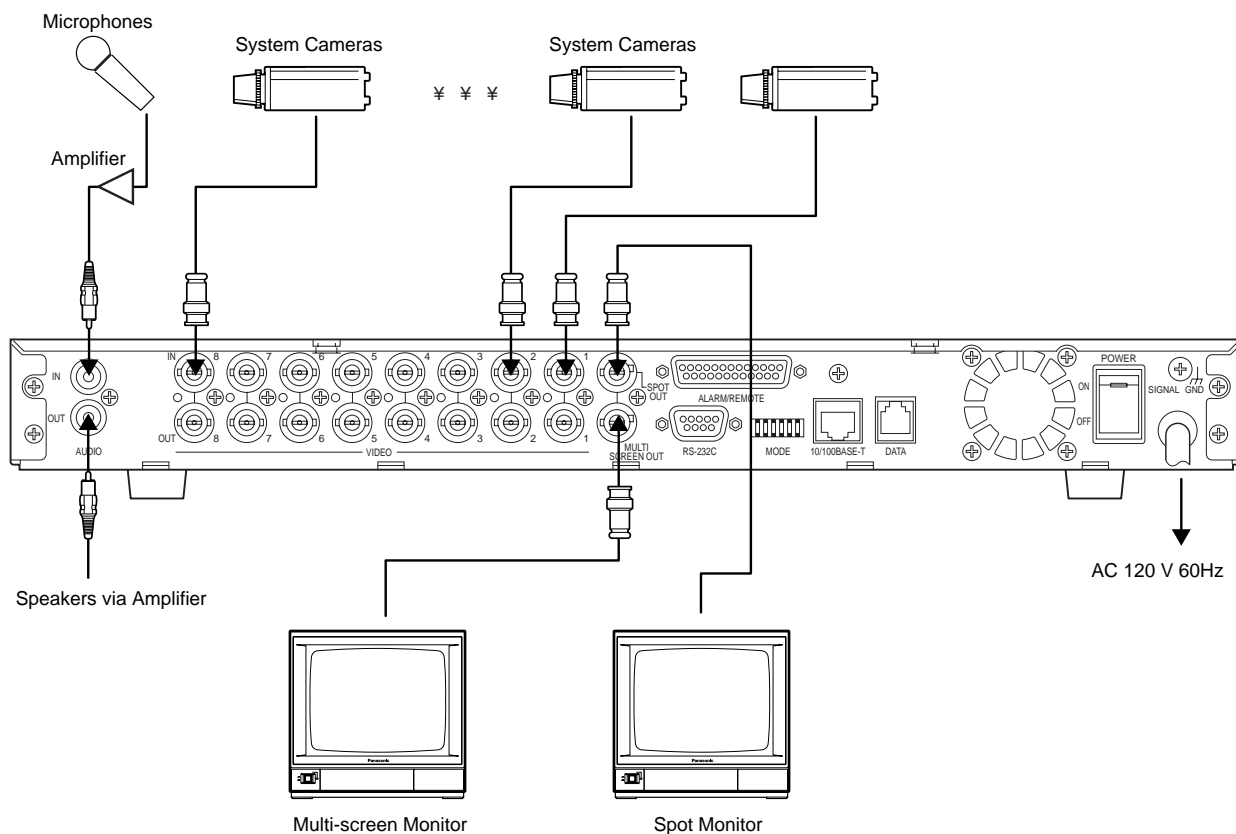
CONNECTIONS & DIP SW SETTING

SYSTEM COMPOSITION & CONNECTIONS

Three system compositions are introduced depending on the connecting camera type, and other peripherals.

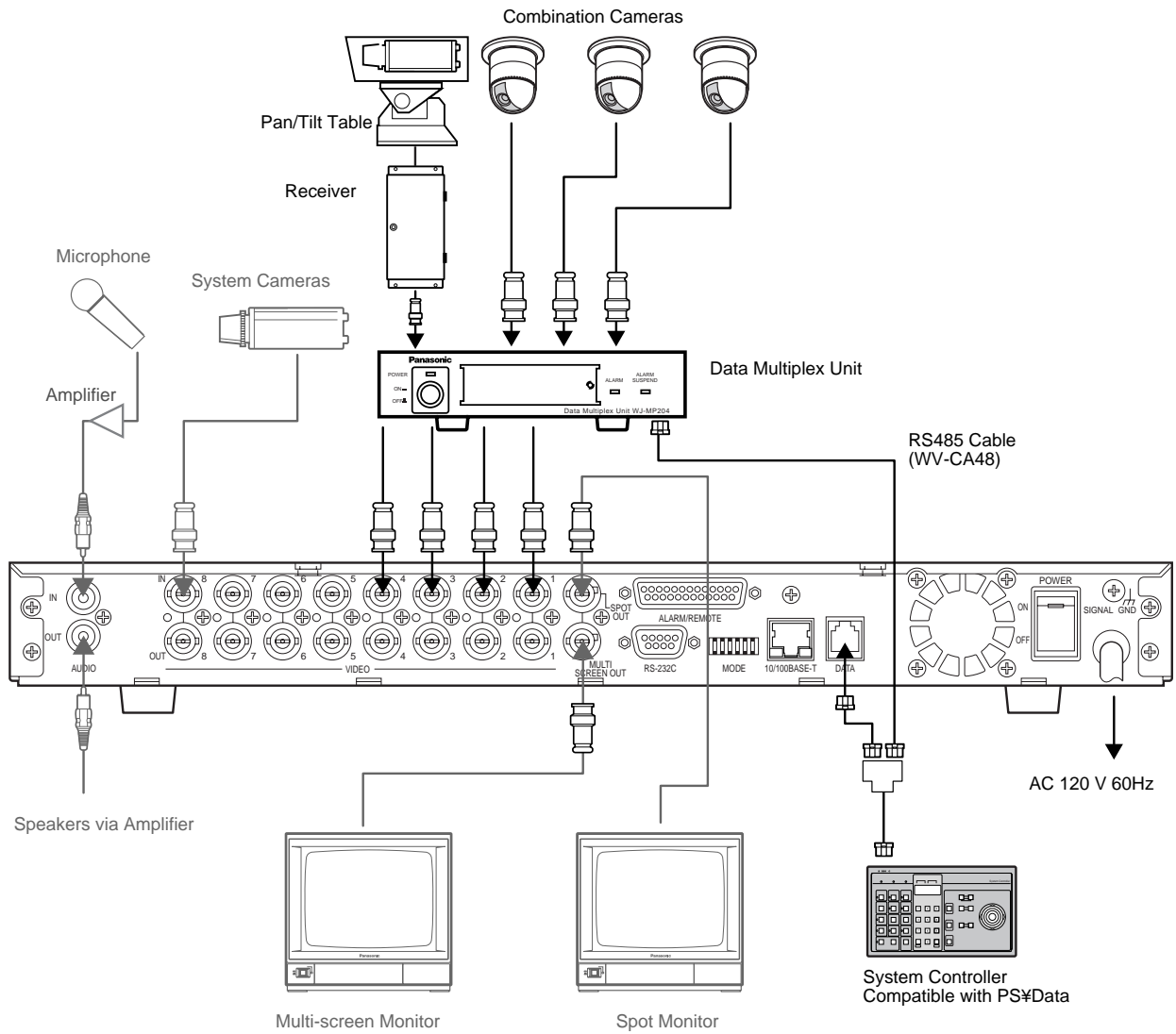
<Basic System>

Ordinary system-cameras are connected while the multi-screen and spot monitors, microphone, and speakers are also connected.



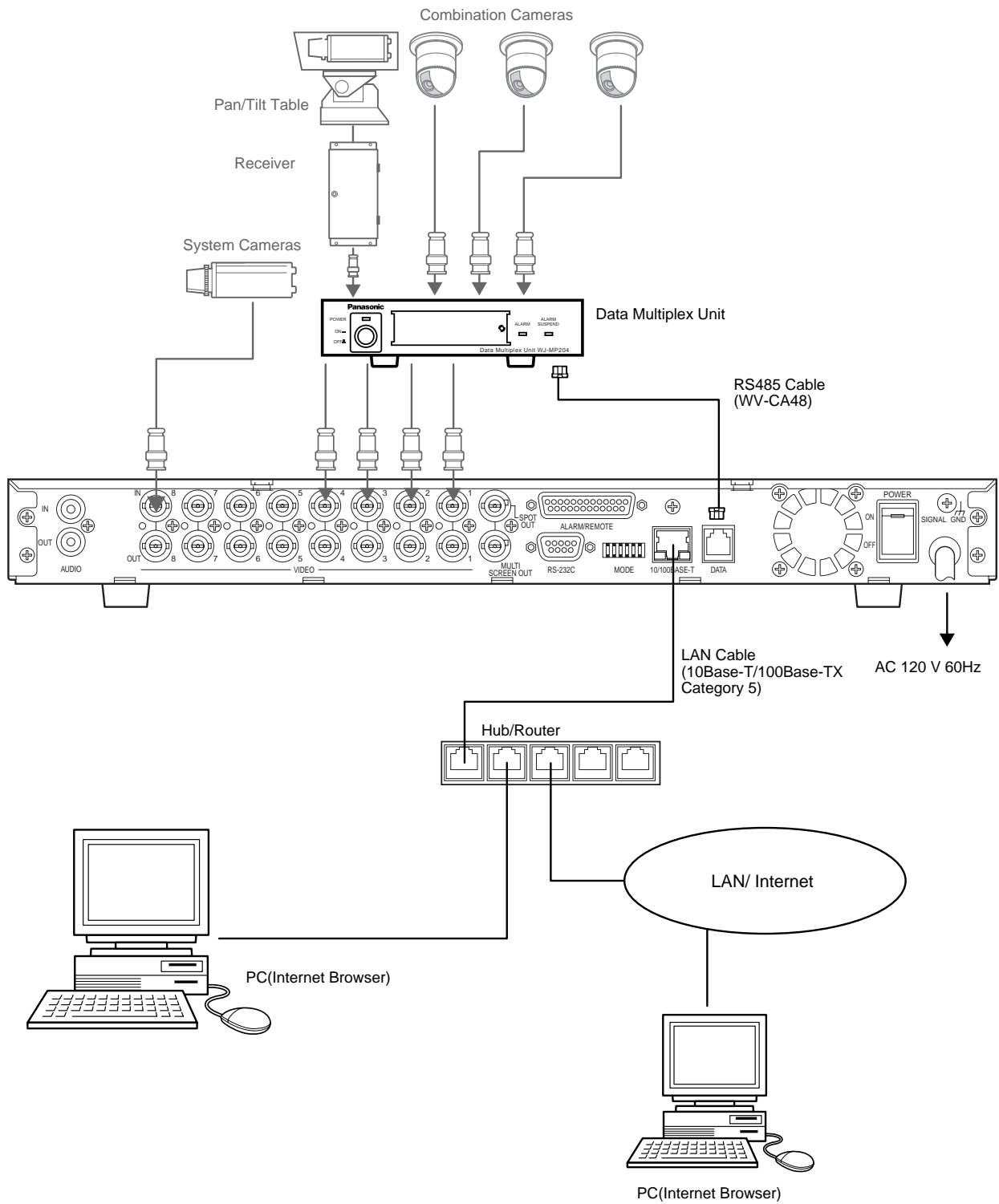
<PS•Data System>

Cameras equipped with data multiplex function are connected while the system controllers and multiplex unit compatible with PS•Data are also connected.



<Network System>

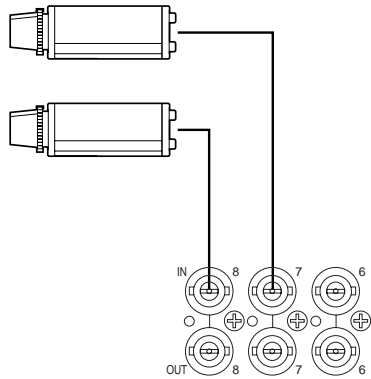
Personal computers can access the WJ-HD200 via the network.



■ Connection with the Camera Site

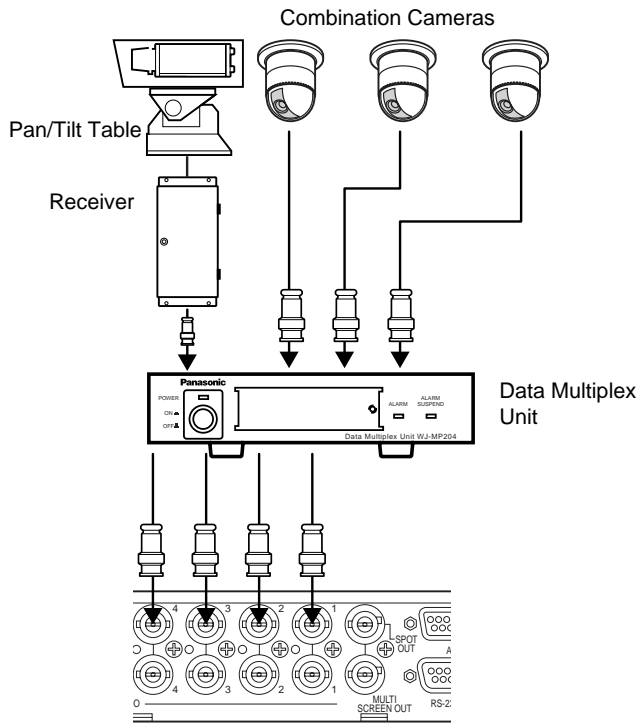
● System Camera Connection

Connect the system cameras directly to the recorder.



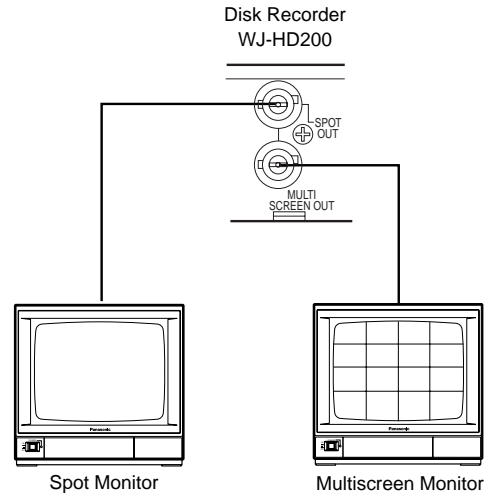
● Data-multiplex Camera Connection

Connect the combination cameras and the receiver via the multiplex unit with the recorder.



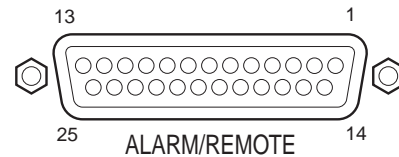
■ Connection with the Monitors

Connect the spot and multi-screen monitors.



■ ALARM/REMOTE Connection

A 25-pin connector is used to accept and supply control signals.



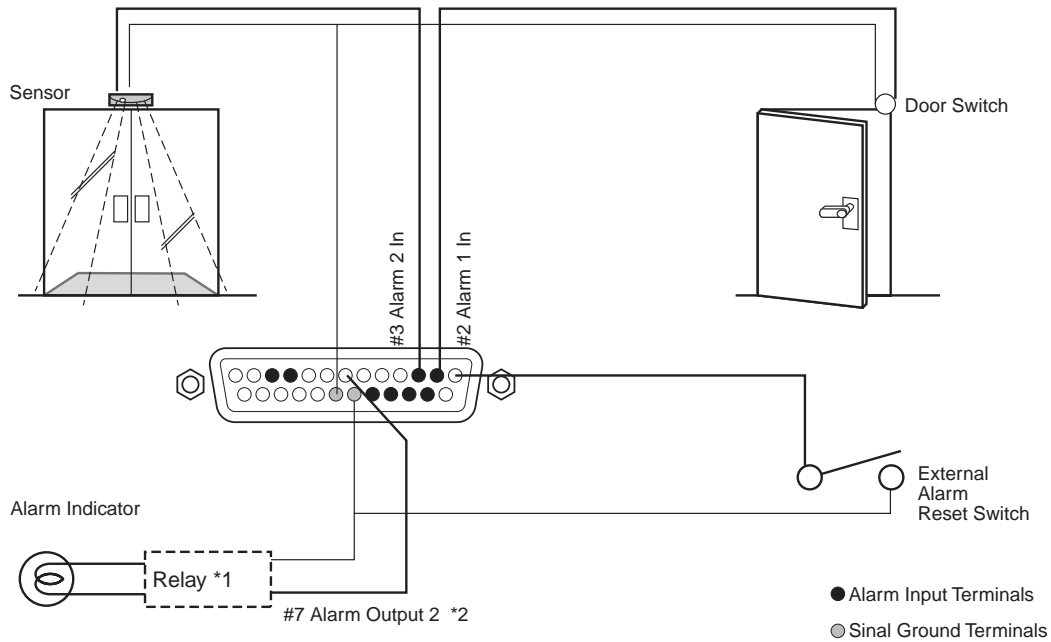
Pin #	Designation	Pin #	Designation
1	Alarm Reset In	14	Time Adjust Out
2	Alarm 1 In	15	Alarm 5 In
3	Alarm 2 In	16	Alarm 6 In
4	Alarm Recovery 1* Out	17	Alarm 7 In
5	Alarm Recovery 2 Out	18	Alarm 8 In
6	Alarm 1 Out	19	Signal GND
7	Alarm 2* Out	20	Signal GND
8	Disk End Out	21	Play Status Out
9	Warning Out	22	EXT REC MODE In
10	Alarm 3 In	23	No Connection
11	Alarm 4 In	24	Sequence In
12	REC Status Out	25	Sequence Out
13	Time Adjust In		

Notes:

- Input rating: Low-active, non-voltage normally open (N.O.) contact
- Output rating for pin # 4 ALARM RECOVERY 1* OUT: High-active with a 200 Ω resistor pulled up to + 5 V
- Output rating for pin # 7 ALARM 2* OUT: High-active with a 4.7 k Ω resistor pulled up to + 12 V.
- Output rating for other pins: Low-active, maximum load capacity of 24 V 100 mA , open-collector with a 4.7 k Ω resistor pulled up to +5 V inside

● Alarm Connection

There are eight alarm inputs while two outputs are provided with different driving capacity.

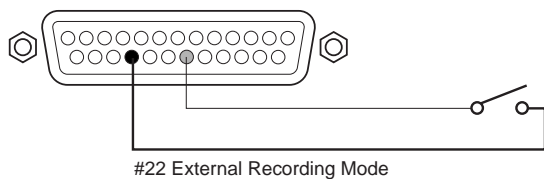


*1: Use when the indicator exceeds over the drive capacity of the alarm out terminal.

*2: Connect to #6 ALARM OUT 1 when using a low-active device.

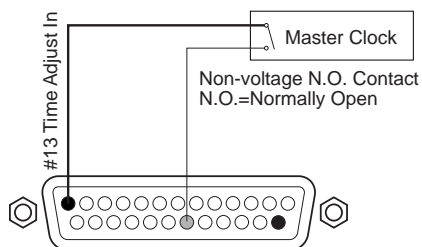
● External Recording Connection

The recording mode will change from the internal timer mode to the external mode (EXT REC MODE) specified in REC SETUP menu, while turning on the switch.



● Time Adjusting Connection

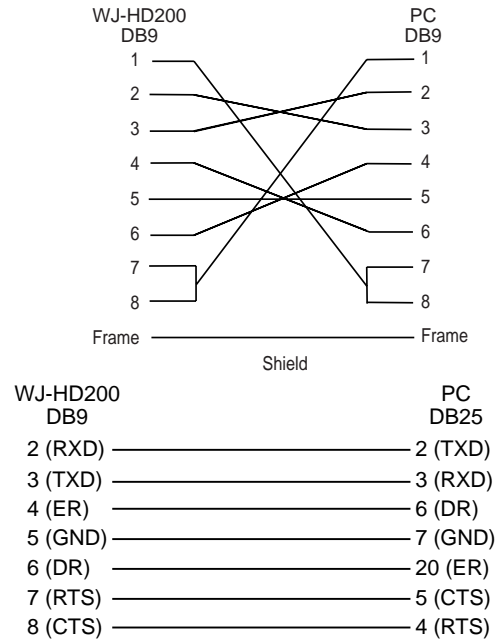
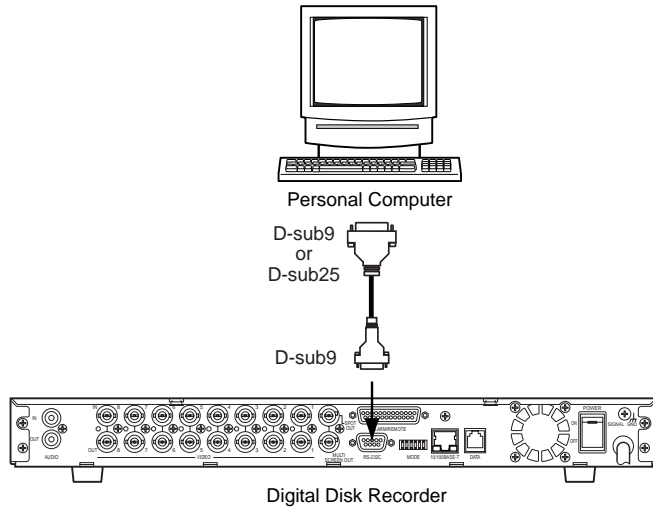
Internal timer is calibrated with this input.



■ Serial Port Connections

● RS232C Connection

A 9-pin connector is provided with the recorder to communicate with the PC based on the RS232C.



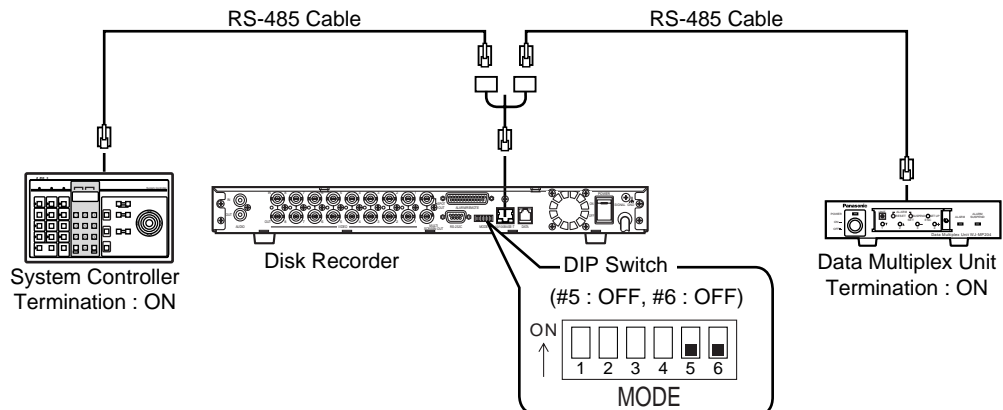
● PS•Data Connection

Note the following when connecting the recorder with the PS•Data devices.

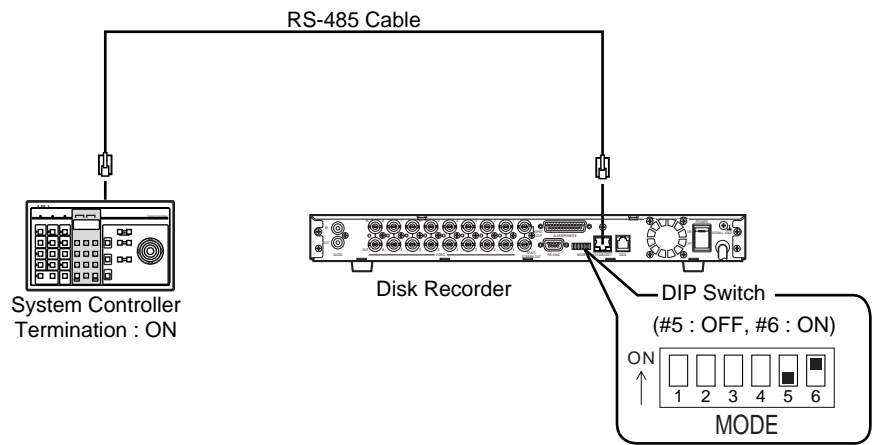
1. Place the recorder in the middle of the chain when the System Controller and other devices are connected.
2. Termination must be made at both ends of the chain.
Refer to the manual included with each device for termination.
See page 20, ■ DATA Port Termination for the recorder.
3. Protocol selection must be set to PS•DATA in the menu setup.
4. Use the optional RS-485 cable for connection.

Connection examples are shown.

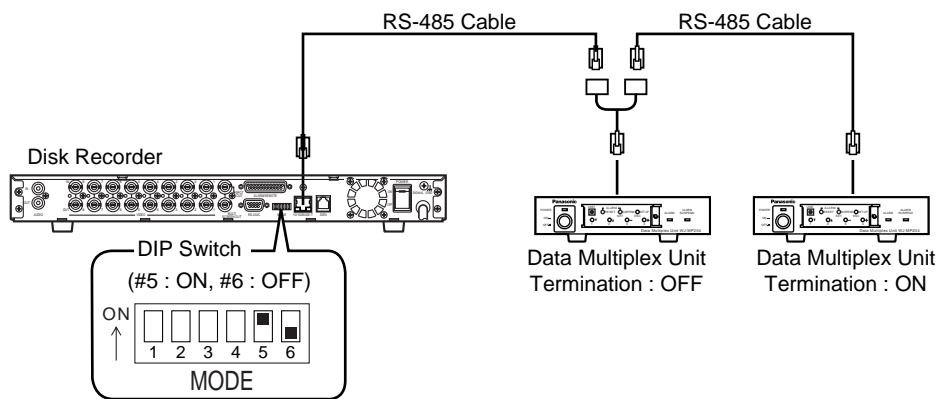
<Case 1 > With System Controller and other devices



<Case 2> Exclusively with System Controller

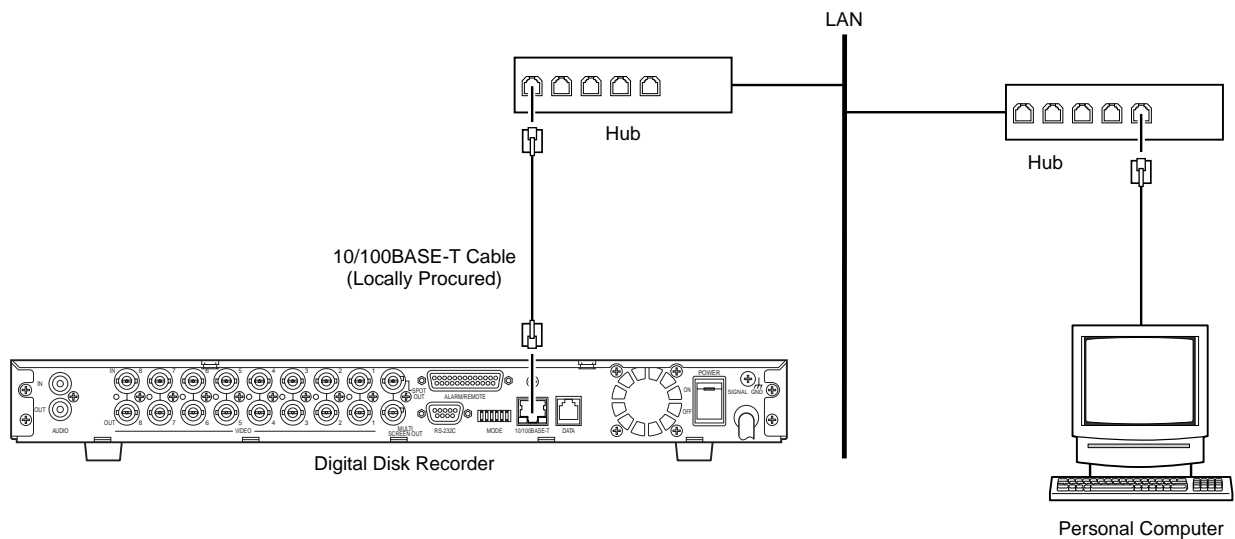


<Case 3> With other system devices except System Controller



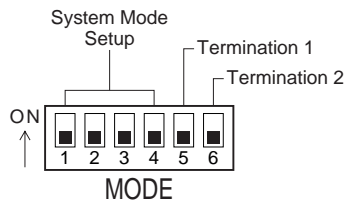
● 10/100BASE-T Port Connection

The PC controls the WJ-HD200 via Ethernet.



DIP SWITCH SETTING

The 6-bit DIP switch is used as follows.



- #1 through #4: System mode setup
- #4 and #5: DATA port termination

System Mode

Switch Position	Mode
	Normal operation mode
	Initializing HTML contents (Carry-out time: 40 minutes)

DATA Port Termination

Termination switch positions depend on the system composition.

Switch Position	System Composition with:		Note
	System Controller	Other System Devices	
	Yes	Yes	<Case 1>
	Yes	No	<Case 2>
	No	Yes	<Case 3>

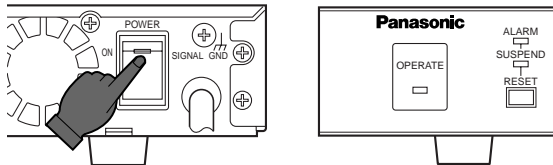
Note: Use only the switch combinations shown in the table above.

SETUP PROCEDURES

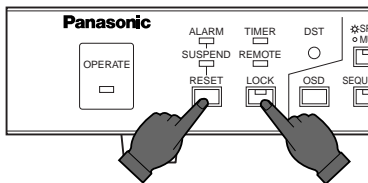
■ PRIOR TO SETUP

● Turning On the Power

1. Plug the power cord into the AC outlet.
2. Turn on the power switch on the rear panel. The operate LED lights up. HDD check and system check will be carried out while displaying respective messages. Power-on recording will start if TIMER has been set to EXT in the SYSTEM SETUP menu.
3. Press the [REC STOP] button to stop power-on recording, if applicable.



4. Hold down the buttons of [LOCK] and [RESET] simultaneously to suspend alarm inputs. The SUSPEND indicator will light up. This will help your setting operations not to be interrupted by alarm inputs.

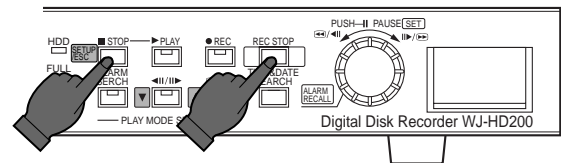


Note:

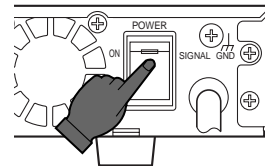
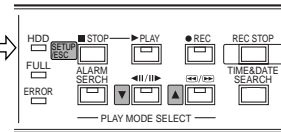
- Refer to Power-on Procedures in Appendix for details.

● Turning Off the Power

1. Press the [STOP] button when playing back, or [REC STOP] button when recording. Confirm that the HDD access indicator has turned off.
2. Turn off the power switch on the rear panel. The operate LED goes off.



Confirm that the HDD access indicator is off.

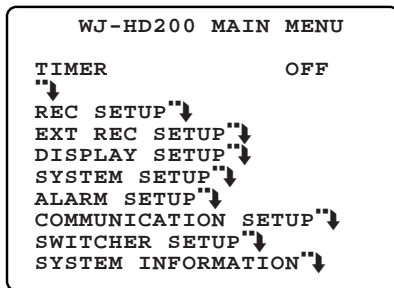


Notes:

- Do not turn off the power while the HDD access indicator is on.
- Do not leave the recorder for a long time. Supply AC power to the unit and turn it on to charge up the backup battery.

● Displaying WJ-HD200 MAIN MENU

1. Confirm that the camera and peripherals are connected correctly and securely.
2. Turn on the power switches of all system components.
3. Hold down the [STOP] button for 2 seconds. The WJ-HD200 MAIN MENU appears.

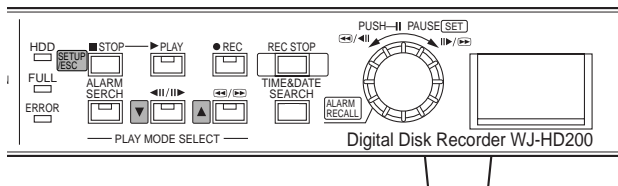


● Closing WJ-HD200 MAIN MENU

1. Hold down the [STOP SETUP/ESC] button for 2 seconds. The setup menu disappears, and normal operation will be available.

Note: A blackout screen may appear for about 2 seconds until the camera image is displayed if you changed the settings and closed the setup menu.

● Buttons and Dials Used for Setup



[▲ up] button: Moves the cursor upwards in a menu, and opens the previous menu page.

[▼ down] button: Moves the cursor downwards in a menu, and opens the next menu page.

JogDial (Counter-clockwise): Decreases the parameter value.

JogDial (Clockwise): Increases the parameter value.

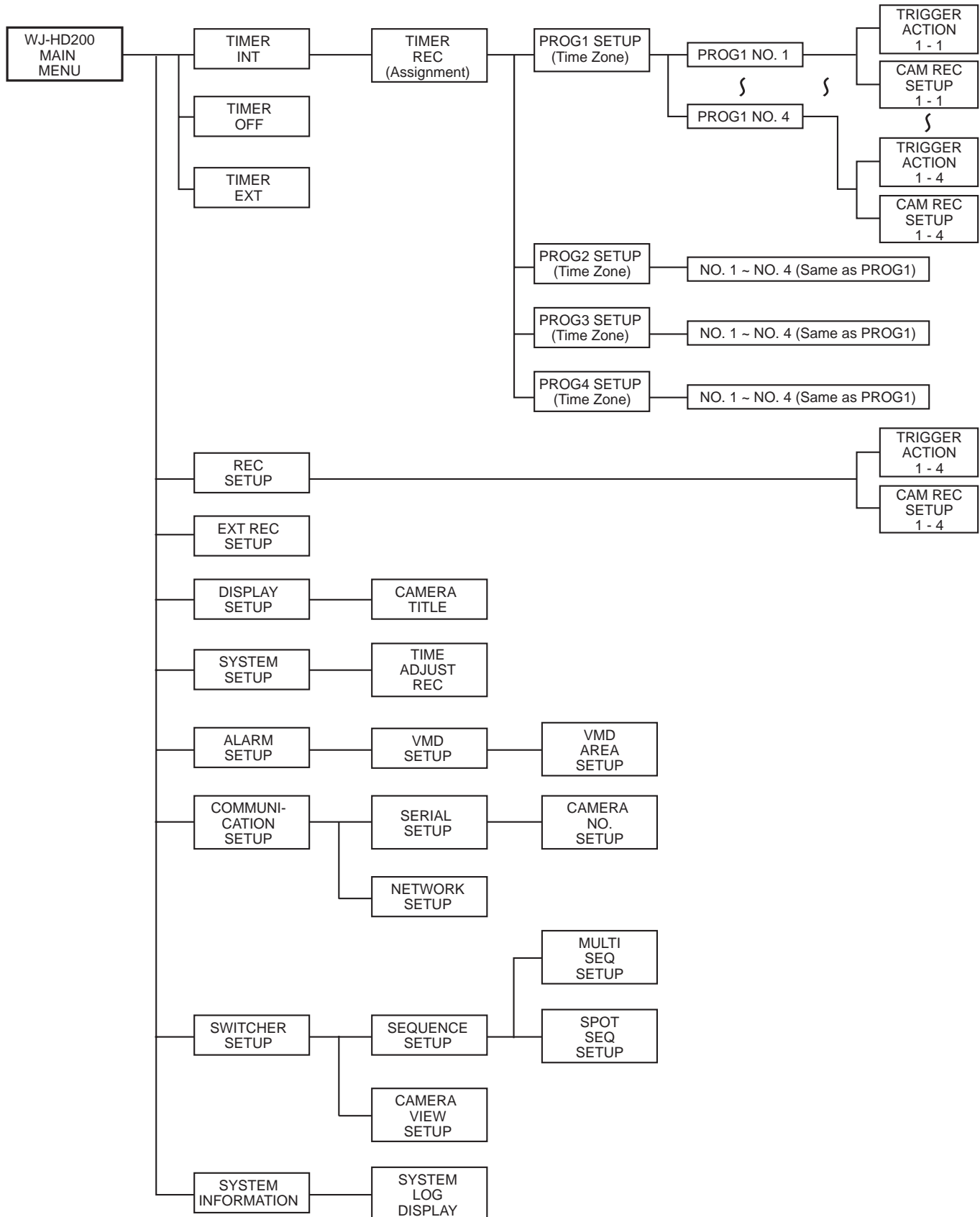
JogDial (Pressing) SET: Validates the selection, and moves the cursor to the right. When the selected item has a "↓" return symbol, pressing this will open the next lower layer menu for more minute settings

[STOP SETUP/ESC] button (Pressing): Moves the cursor to the left, or returns to the previous menu.

[STOP SETUP/ESC] button (Holding down): Opens the setup menu, or escapes from it and switches back to normal operation.

● Menu Tree

There are menu windows in a hierarchy as shown in the figure.

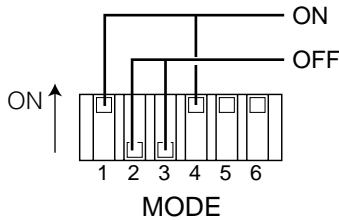


■ INITIALIZING

You can initialize either all disk contents including image data and setup data.

● Initializing All Contents & Setup Data

Warning! The following are irrevocable procedures. We strongly recommend that you copy important pictures from the hard disk.



1. Press the [REC STOP] button on [STOP] button to stop recording or playback.
2. Turn off the power.
3. Set MODE switches #1 through 4 on the rear panel as follows:

#1: ON
#2: OFF
#3: OFF
#4: ON
4. Turn on the power.
The disk contents and setup data are initialized.

NOW FORMATTING HDD

Note: When finished, the monitor will display the camera image and status information while the indicator on the selected CAM SEL button is lit. Be sure to carry out the next step, #5.

5. Turn off the power, and return the MODE switches to the previous positions. Then, turn on the recorder.

● Initializing Setup Data

SYSTEM INFORMATION			
HDD1	HOUR	METER	10000H
HDD2	HOUR	METER	10000H
HDD CAPACITY		135.95G	
DEFAULT→		SET→	
SYSTEM VERSION		X.XX	
SYSTEM LOG		↓	

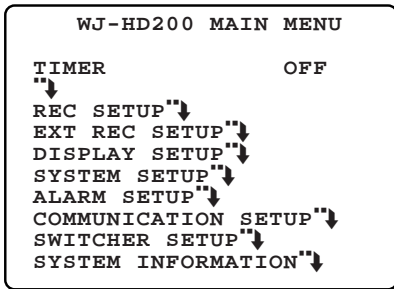
1. Open the SYSTEM INFORMATION window, then move the cursor to DEFAULT.
2. Press the JogDial to move the cursor to SET.
3. Press the JogDial.
4. Select YES with the JogDial.

YES: Initializing of setup data is enabled.
5. Press the JogDial.
SET DONE appears on the monitor after initializing.
6. Press the [SETUP/ESC] button.
The cursor moves to DEFAULT.
7. Hold down the [SETUP/ESC] button for 2 seconds to quit the setup.

Note: After closing the setup menu, the system may automatically restart if any parameter on the network has been changed.

■ Main Menu WJ-HD200 MAIN MENU

The main menu is located in the top of the menu tree from where every menu window starts.



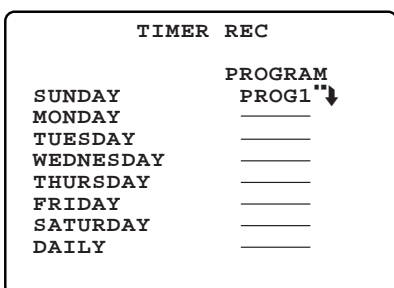
1. Hold down the [SETUP/ESC] button for 2 seconds. The main menu appears.
2. Select a setup menu you wish to program using the [▲] or [▼] button, and press the [SET] (JogDial). The selected setup menu opens. The following pages will detail each setup menu.

■ Timer Recording Setup TIMER REC

This menu assigns a timer to start recording by use of an external timer or the internal timer. When the internal timer (INT) is set, there are four programs assignable to the weekly and/or daily schedule. Each program can contain up to four events along with start and end time, recording-mode. Alarm recording will be carried out when an alarm operates during the scheduled time zone.

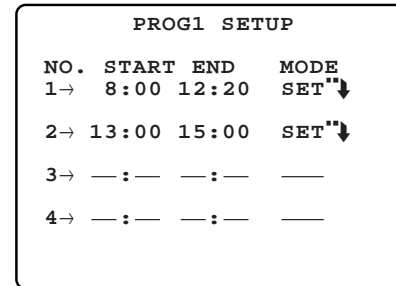
When the external timer (EXT) is set and the connected timer switch turns on to supply power, the recorder will start power-on recording.

1. Select a timer mode using the JogDial.
 - OFF:** Does not use any timer, and manual recording is available.
 - INT:** Carries out internal timer recording according to the program.
 - EXT:** Carries out power-on recording.
2. Press the JogDial to validate the selection. When INT is selected, the TIMER REC menu opens.



3. Move the cursor to the desired line using the [▲] or [▼] button.
4. Select a program number from among PROGRAM 1 to PROGRAM 4 using the JogDial, and press the JogDial. The PROGRAM "1-4" SETUP menu opens.

● Program "1-4" Setup PROGRAM "1-4" SETUP



1. Select the event number with the [▲] or [▼] button, and press the JogDial. The cursor moves to the START position. After this operation, the [▲] and [▼] buttons move the cursor to the right and left.
2. Select a start time (START) using the JogDial, and press the [▲] button to move the next position.

Available START time: From 0:00 to 23:59 in the 24-hour system.

3. Select an end time (END) in the same way as above and press the [▲] button to move the cursor to the MODE position.

Available END time: From 0:01 to 24:00 in the 24-hour system.

Notes: There are some restrictions on programming.

- An event, except the first event (NO 1), can be programmed only if the immediately preceding event has been set up.
- A start time should be late than the end time of the immediately previous event.
- An end time should be late than the start time of the event.
- An end time 24:00 will cancel all the following events.

4. Press the JogDial while the cursor is on SET to open the event programming menu.

● Recording Mode Setup PROG “1-4” NO. “1-4” SETUP

Parameters for internal timer recording are assigned to each event (NO. 1-4) of the program (PROGRAM 1-4) in this menu. There are five recording modes available: super fine (SF), fine (FQ), normal (NQ), long-time (EX) and optional (SP). If combined with audio recording (-A), the number of recording modes doubles. The selected recording mode determines the remaining recording time that is displayed on the monitor.

In the SP mode, the field rate and picture quality are variable, and can be selected at option in the range of 0.1 to 30 FPS and quality levels from five options respectively. After the recording mode is selected, the available recording time is determined and displayed.

Rec Mode	Quality	Audio Record	Note
SF-xxxH	Super Fine	N/A	
FQ-xxxH	Fine	N/A	
NQ-xxxH	Normal	N/A	
EX-xxxH	Long time	N/A	
SF-AxxxH	Super Fine	Available	
FQ-AxxxH	Fine	Available	
NQ-AxxxH	Normal	Available	
EX-AxxxH	Long time	Available	
SP-AxxxH	Optional setup	Available	Field rate, quality selected optionally
SP-xxxH	Optional setup	N/A	Field rate, quality selected optionally

Notes:

- For the recording modes other than SP, suffixed “xxx” in the table will be replaced by a calculated recording time of 24, 48, 72, 96, 120, 170, 180, 240, 480, 960, 1 200, 1 440, 2 160, 2 880, or 8 640 hours. The selected recording mode with the preset rate and quality will determine the suffix.
- Actual recording rate even preset to 30 or 15 FPS may be lessened to 7.5 FPS at worst, while such busy multi task as playback, remote-access playback, remote-access live image, FTP access, multi split display, video motion detection are carried out at a time. The status display will indicate as “*PLAY” while playing back the images recorded with a changed rate from the preset.
- Suffix “xxx” following “SP-” is specified in REC MODE TABLE in ADDENDUM attached to the manual.

- Move the cursor to MODE, and press the JogDial. The mode area will be highlighted.
- Select a recording mode using the JogDial, and press the Jogdial. Audio data will be recorded when a mode with hyphen A is selected.

Available Recording Mode: SF, FQ, NQ, EX, SP, SF-A, FQ-A, NQ-A, EX-A, and SP-A.

- When SP or SP-A is selected, specify a recording rate (REC RATE) using the JogDial, and press the JogDial.

Available recording rate: From 0.1 to 30 FPS

- When SP or SP-A is selected, specify a recording quality (REC QUALITY) using the JogDial, and press the JogDial.

Available recording quality: SUPER FINE, FINE, NORMAL, EXTENDED

● Alarm Recording Mode Setup ALM REC MODE

Alarm events arising within the time zone specified by the program will start recording with the preset parameters. Refer to “PROG NO. SETUP” described above in this menu for operating procedures, and available parameters, since they are very much similar.

● Pre-alarm Recording PRE ALM REC

Picture recording will start prior to the alarm activation at the time specified by this setting.

- Move the cursor to PRE ALARM REC with the [▲] or [▼] button.
- Select the desired pre-recording time with the JogDial, and press the JogDial.
The default is 0S.

Available time (seconds): 0S, 1S, 2S, 3S, 4S, and 5S

● Post-alarm Recording POST ALM REC

This setting specifies the duration of alarm recording after an alarm input. Functions active during alarm recording are buzzer beeping, ALARM LED indication, "ALARM" status display, and the ALARM OUT signal.

1. Move the cursor to POST ALARM REC with the [▲] or [▼] button.
2. Select the desired duration with the JogDial.
The default value is 10 seconds.
The unit will revert to the previous status when the time has elapsed.

Available Time (Second): 5, 10, 20, 30

Available Time (Minute): 1, 1.5, 2, 3, 6

Continue: Recording continues until the [REC STOP] button is pressed, or RESET IN signal is supplied to the rear panel.

Manual: Recording continues while the alarm input is active, or at least for 10 seconds if the input early turns inactive.

● Dynamic Recording DYNAMIC REC

This setting specifies recording pattern on the disk when one or more alarm operate.

1. Move the cursor to DYNAMIC REC with the [▲] or [▼] button.
2. Select the parameter with the JogDial, and press the Jogdial.
The default is OFF.

ALM-MULTI: Alarm activated channels are recorded with priority over others.

OFF: All channels are evenly recorded.

● Trigger Action Setup TRIGGER ACTION SETUP

This setting specifies two roles of the alarm recording and alarm control functions (Refer to page 44) in the post-alarm sequence.

TRIGGER ACTION SETUP	
CAM	MODE
1	OFF
2	OFF
3	OFF
4	REC&ALM
5	REC
6	OFF
7	OFF
8	OFF

1. Move the cursor to TRIGGER ACTION SETUP"↓", and press the JogDial.
The TRIGGER ACTION SETUP menu opens.
2. Move the cursor to the channel.
3. Select the parameter with the JogDial, and press the Jogdial.
The default is REC&ALM.

OFF: Disables alarm recording or warning.

REC&ALM: Enables both alarm recording and warning.

REC: Enables alarm recording, but disables warning.

4. Repeat steps 2 and 3 until all channels are set.
5. Press the [SETUP/ESC] button to return to the PROG "1" NO. "1" SETUP menu.

● Camera Recording Setup CAM REC SETUP

This setting is provided for the purpose of disk space saving. Setting allows each camera channel to be enrolled in all recording modes or exclusively in alarm recording.

CAM REC SETUP	
CAM	MODE
1	REC
2	REC
3	REC
4	ALM-ONLY
5	REC
6	ALM-ONLY
7	REC
8	REC

1. Move the cursor to CAM REC SETUP, and press the [SET] button. The CAM REC SETUP menu opens.
2. Move the cursor to the camera channel with the [▲] or [▼] button.
3. Select the parameter with the JogDial, and press the JogDial.
The default is REC.

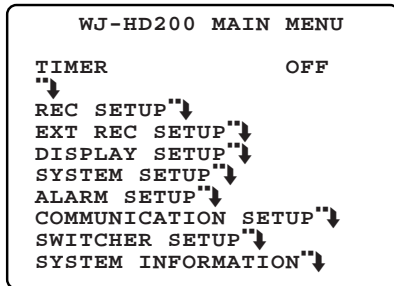
REC: The channel is recorded in alarm recording, timer recording and manual recording mode.

ALM-ONLY: The channel is recorded only when the alarm operates.

4. Repeat steps 2 and 3 until all channels are set.
5. Press the [SETUP/ESC] button to return to the PROG "1" NO. "1" SETUP menu.

■ Manual Recording Setup REC SETUP

The WJ-HD200 will record image and audio data in either ways with or without restrictions of the timer. Manual recording is available when OFF is selected for TIMER in the WJ-HD200 MAIN menu, and is free from timer schedule. Alarm recording will also be carried out with parameters specified in this menu.



Refer to I Recording Mode Setup PROGRAM "1-4" NO. "1-4" SETUP for operating procedures and available parameters.

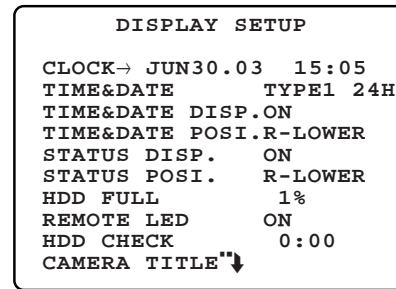
■ Externally Specified Recording Mode EXT REC

This setting allows the recording mode to change from ongoing one to optional one specified here when turning on the externally connected switch to the EXT REC terminal.

1. Move the cursor to EXT REC MODE with the [▲] or [▼] button.
2. Select the desired mode with the JogDial, and press the JogDial.
Refer to page 26 and 27 for the recording mode parameters.
3. Press the [SETUP/ESC] button to return to the WJ-HD200 MAIN menu.

■ Display Setup DISPLAY SETUP

You can program such information displays on the monitor as clock, time and date, and so forth.



● Clock CLOCK

1. Press the JogDial (SET) to move the cursor to the desired position.
2. Rotate the JogDial clockwise to increase the parameter, or counter-clockwise to decrease. Each position indicates the year, month, day, hour, and minute.
The default is "JAN 01. 03 00:00".
MM DD YY HH : MM
3. Press the JogDial (SET) to validate the selection.
4. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

● Time & Date TIME & DATE

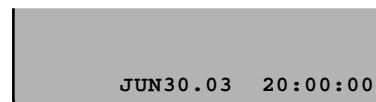
1. Select a display type with the JogDial.
The default is TYPE1 24H.

TYPE1 24H: Time and date are displayed in one line in the 24-hour system.

TYPE1 12H: Time and date are displayed in one line in the AM-PM system.

TYPE2 24H: Time and date are displayed in two lines in the 24-hour system.

TYPE2 12H: Time and date are displayed in two lines in the AM-PM system.



TYPE1



TYPE2

2. Press the JogDial (SET) to validate the selection.
3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

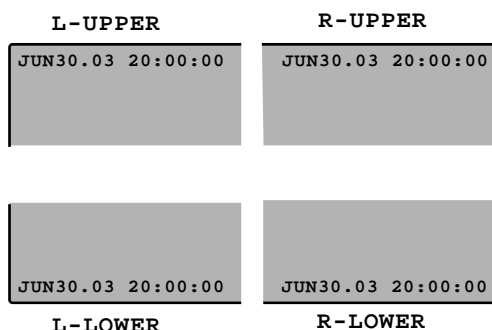
● Time & Date Display TIME & DATE DISP.

1. Select ON or OFF with the JogDial.
The default is ON.

ON: Time & date display is enabled.
OFF: Time & date display is disabled.

2. Press the JogDial (SET) to validate the selection.
3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

● Time & Date Position TIME & DATE POSI.



1. Select a display position with the JogDial.
The default is R-LOWER.
- R-LOWER:** Displays time & date in the right lower corner.
R-UPPER: Displays time & date in the right upper corner.
L-LOWER: Displays time & date in the left lower corner.
L-UPPER: Displays time & date in the left upper corner.
2. Press the JogDial (SET) to validate the selection.
 3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

Note: When 9-split screen is displayed, the time and date position is fixed to R-LOWER.

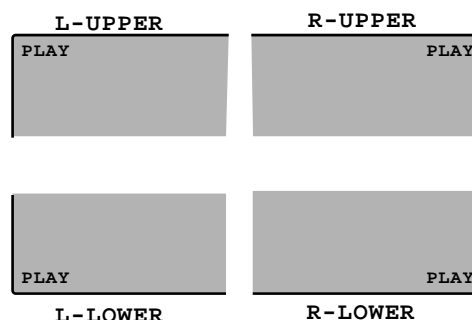
● Status Display STATUS DISP.

1. Select ON or OFF with the JogDial.
The default is ON.

ON: Status display is enabled.
OFF: Status display is disabled.

2. Press the JogDial (SET) to validate the selection.
3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

● Status Position STATUS POSI.



1. Select a display position with the JogDial.
The default is R-LOWER.
- R-LOWER:** Displays status in the right lower corner.
R-UPPER: Displays status in the right upper corner.
L-LOWER: Displays status in the left lower corner
L-UPPER: Displays status in the left upper corner.
2. Press the JogDial (SET) to validate the selection.
 3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

Note: When 9-split screen is displayed, the status position is fixed to R-LOWER.

● Disk Capacity Warning HDD FULL

The recorder observes the disk capacity to warn the operator that the available capacity is nearing the end when STOP is selected for DISK END MODE. There are two warning levels. First, the FULL indicator on the front panel blinks when the remaining capacity has reached the preset value. Finally, the buzzer beeps when the disk is full, provided that the DISK END BUZZER parameter in the SYSTEM SETUP is set to ON. At the same time, the FULL indicator turns on.

DISPLAY SETUP		
CLOCK→	JUN30.03	15:05
TIME&DATE	TYPE1	24H
TIME&DATE	DISP.ON	
TIME&DATE	POSI.	R-LOWER
STATUS	DISP.	ON
STATUS	POSI.	R-LOWER
HDD FULL		1%
REMOTE LED		ON
HDD CHECK		0:00
CAMERA TITLE	↓	

1. Select the desired value with the JogDial.
The default is 1 %.

1% – 99%: The FULL indicator blinks when the remaining capacity reaches the selected value.

2. Press the JogDial (SET) to validate the selection.
3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

● Remote LED REMOTE LED

The remote LED on the front panel will indicate or ignore the remote controlling status to the recorder via the network.

DISPLAY SETUP		
CLOCK→	JUN30.03	15:05
TIME&DATE	TYPE1	24H
TIME&DATE	DISP.ON	
TIME&DATE	POSI.	R-LOWER
STATUS	DISP.	ON
STATUS	POSI.	R-LOWER
HDD FULL		1%
REMOTE LED		ON
HDD CHECK		0:00
CAMERA TITLE	↓	

1. Select either ON or OFF with the JogDial.
The default is OFF.

ON: REMOTE LED turns on when the network controls the recorder.

OFF: REMOTE LED is deactivated.

2. Press the JogDial (SET) to validate the selection.

3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

● Disk Check HDD CHECK

S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) is activated or deactivated for HDD check.

DISPLAY SETUP		
CLOCK→	JUN30.03	15:05
TIME&DATE	TYPE1	24H
TIME&DATE	DISP.ON	
TIME&DATE	POSI.	R-LOWER
STATUS	DISP.	ON
STATUS	POSI.	R-LOWER
HDD FULL		1%
REMOTE LED		ON
HDD CHECK		0:00
CAMERA TITLE	↓	

1. Select either ON or OFF with the JogDial.
The default is OFF.

ON 0:00-23:00: The recorder checks the HDD at the specified time every day.

OFF: Check is deactivated.

2. Press the JogDial (SET) to validate the selection.
3. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

Note: Recording will resume after one-second intermission when HDD is checked.

● Camera Title CAMERA TITLE

Camera title and display position are specified for each camera.

CAMERA TITLE		
CAM	TITLE	POSI.
1	OFF	
2	ON→ 2....	R-LOWER
3	ON→ 3....	L-LOWER
4	OFF	
5	OFF	
6	OFF	
7	OFF	
8	OFF	

1. In the DISPLAY SETUP menu, move the cursor to CAMERA TITLE↓, and press the JogDial to open the CAMERA TITLE menu.
2. Move the cursor to the camera you wish to program using the [▲] or [▼] button.

3. Select either ON or OFF with the JogDial.
The default is ON for all cameras.

ON: Enables camera title display, title registration, and position selection.

OFF: Disables the camera title functions.

4. Press the JogDial (SET) to validate the selection.
When on is selected, go to the following steps. The cursor moves to the title edit area.
When off is selected, return to step 2 above, or press the [SETUP/ESC] button to escape from the CAMERA TITLE menu.

5. <Editing>

- 5-1 Select a character for the digit with the JogDial.
Each title is identical to the camera number: 1, 2, 3, and so forth as the default.
Available characters are as follows.

0 ~ 9 A ~ Z ! % &
() * - / : . ?
← → ↑ ↓ •

- 5-2 Press the JogDial to validate the selection for the digit.
The selected character is displayed on the digit, and the cursor goes to the right digit.
- 5-3 Press the [SETUP/ESC] button to move the cursor back to the previous digit.
- 5-4 Repeat steps 5-1, 5-2 and 5-3 until all digits are entered.
- 5-5 Press the JogDial when the cursor is on the right end digit to validate the entered title. The cursor moves to POSI. column.

Note: A bullet (centered dot) stands for a space, used for deleting entered characters.

6. Select a display position with the JogDial.
The default setting for camera 1, 2, 5, and 6 is R-LOWER, for camera 3, 4, 7, and 8 is R-UPPER.

R-LOWER: Displays the camera title in the right lower corner.

R-UPPER: Displays the camera title in the right upper corner.

L-LOWER: Displays the camera title in the left lower corner.

L-UPPER: Displays the camera title in the left upper corner.

Note: When 9-split screen is displayed, the camera title position is fixed to R-LOWER.

7. Press the [▲] or [▼] button to select the next item, or press the [SETUP/ESC] button to quit the display setup.

System Setup SYSTEM SETUP

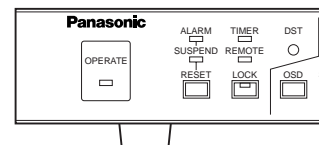
There are two pages of the system setup. To turn a new page, continue to move the cursor with the [▲] or [▼] button.

SYSTEM SETUP (1 OF 2)	
PASSWORD LOCK	OFF
ALL→	*****
OPERATION→	*****
KEYLOCK BUZZ	ON
SKIP ALM-RECALL	5PAGE
SIMUL REC&PLAY	ON
ALTER DETECT	OFF
DISK END MODE	CONTINUE
DISK END BUZZ	ON

SYSTEM SETUP (2 OF 2)	
PLAY PRIORITY	LOCAL
TIME ADJUST SETUP	↓
AUTO ERASING	OFF

Password Lock Setup PASSWORD LOCK

A five-digit password is entered to protect all settings, recorded pictures, and operating status against erroneous operation and tampering. Settings alone can be also protected from unauthorized access. While the LOCK indicator on the front panel is on, a message "NOW KEY LOCKED!" is displayed to warn unauthorized operators. If accessed in this condition, the buzzer beeps.



SYSTEM SETUP (1 OF 2)	
PASSWORD LOCK	OFF
ALL→	*****
OPERATION→	*****
KEYLOCK BUZZ	ON
SKIP ALM-RECALL	5PAGE
SIMUL REC&PLAY	ON
ALTER DETECT	OFF
DISK END MODE	CONTINUE
DISK END BUZZ	ON

1. Move the cursor to PASSWORD LOCK with the [▲] or [▼] button.

2. Select either ON or OFF with the JogDial, and press the JogDial.

The default is OFF.

ON: The buttons are password protected. The recorder enters the button lock mode if neither a button nor the JogDial is operated within a period of five minutes.

OFF: No password protection is applied.

3. Move the cursor to ALL→ or OPERATION→ with the [▲] or [▼] button.

ALL: Allows both normal operations and setup operations.

OPERATION: Allows only normal operations. Setup operations are not allowed.

4. Press the JogDial.
The preset password appears.
The default is "12345" for both ALL and OPERATION.

<New password setting>

5. Select a digit, rotating the JogDial.
6. Enter a number with the numeric button, and press the JogDial.
The cursor moves one digit to the right.
7. Repeat step 5 and 6 until all digits are entered.
8. Press the [SETUP/ESC] button to confirm the entered password.
Go back to step 3 if you have not yet set the OPERATION password.

● Keylock Buzzer Setup KEYLOCK BUZZ

SYSTEM SETUP (1 OF 2)	
PASSWORD LOCK	OFF
ALL→	*****
OPERATION→	*****
KEYLOCK BUZZ	ON
SKIP ALM-RECALL	5PAGE
SIMUL REC&PLAY	ON
ALTER DETECT	OFF
DISK END MODE	CONTINUE
DISK END BUZZ	ON

1. Move the cursor to KEYLOCK BUZZ with the [▲] or [▼] button.
2. Select either ON or OFF with the JogDial, and press the JogDial.
The default is ON.

ON: Buzzer beeps when unauthorized access takes place.

OFF: Buzzer does not sound.

● Skip Alarm Recall Setup SKIP ALARM RECALL

Alarm log pages are recalled on the monitor when the JogDial is pressed for 2 seconds. When searching in the log, you may need to skip pages. The displayed page will skip the specified number forward or backward when rotating the JogDial.

SYSTEM SETUP (1 OF 2)	
PASSWORD LOCK	OFF
ALL→	*****
OPERATION→	*****
KEYLOCK BUZZ	ON
SKIP ALM-RECALL	5PAGE
SIMUL REC&PLAY	ON
ALTER DETECT	OFF
DISK END MODE	CONTINUE
DISK END BUZZ	ON

1. Move the cursor to SKIP ALM RECALL with the [▲] or [▼] button, and press the JogDial.
2. Select the number of skip page with the JogDial, and press the JogDial.
The default is 5 pages.
Available skip page: 5, 10, 15, 20, 25 pages

● Simultaneous Recording & Playback SIMUL REC & PLAY

This setting specifies whether to allow simultaneous playback and recording. When the parameter is set to ON, the default of the recording rate will be changed to 15 FPS.

1. Move the cursor to SIMUL REC&PLAY with the [▲] or [▼] button.
2. Select on or off with the JogDial, and press the Jogdial.
The default is ON.

ON: Allows simultaneous recording and playback including remote-access playback and FTP access. The default recording rate is 15 FPS, and as the highest rate is 30 FPS.

OFF: Places priority on recording triggered by pressing the REC button or by an alarm input. Playback including remote-access playback and FTP access will be interrupted if recording starts. The default recording rate is 15 FPS, and as the highest rate is 30 FPS.

Notes:

- A 30 FPS recording will decrease the rate to 15 FPS when playback, remote-access playback, or FTP access is carried out simultaneously with recording.

- Simultaneous playback will pause prior to a time space depending on the recording rate if recording nears to the playback point.
 - 0.1 FPS: 20 minutes maximum
 - 1 FPS: 2 minutes maximum
 - 7.5 FPS: 15 seconds maximum
 - 15 FPS: 7 seconds maximum
- Actual recording rate even preset to 30 or 15 FPS may be lessened to 7.5 FPS at worst, while such busy multi task as playback, remote-access playback, remote-access live image, FTP access, multi split display, video motion detection are carried out at a time. The status display will indicate as “*→PLAY” while playing back the images recorded with a changed rate from the preset.

● Alteration Detection Setup ALTER DETECT

You can enable or disable the recorder to add alteration-detection signals in the JPEG data supplied to the network. The default is OFF.

1. Move the cursor to ALT DET.
2. Select ON or OFF with the JogDial and press the JogDial.

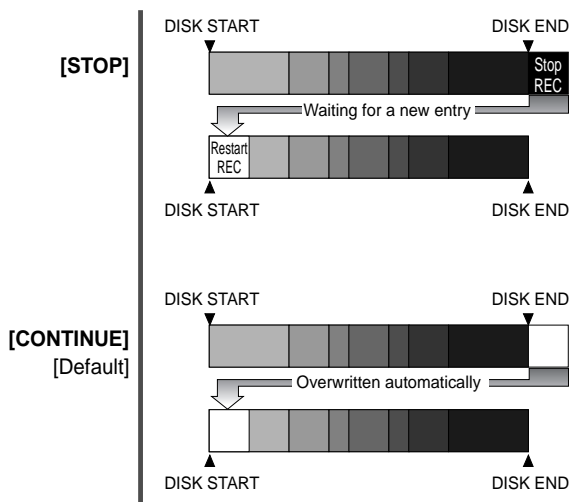
ON: Detects alterations.

OFF: Does not detect.

Note: When set to ON, the data transmission rate on the network will slow down.

● Disk End Mode Setup DISK END MODE

The menu offers the following options at the point where the available recording space on the disk is used up: [STOP], [CONTINUE].



SYSTEM SETUP (1 OF 2)		
PASSWORD LOCK		OFF
ALL→		*****
OPERATION→		*****
KEYLOCK BUZZ		OFF
SKIP ALM-RECALL		5PAGE
SIMUL REC&PLAY		ON
ALTER DETECT		OFF
DISK END MODE		CONTINUE
DISK END BUZZ		ON

1. Move the cursor to DISK END MODE with the [▲] or [▼] button.
2. Select the desired mode with the JogDial, and press the JogDial.
The default is CONTINUE.

STOP: Stops recording until a new mode other than [STOP] is selected.

CONTINUE: Old data is automatically overwritten from the disk start.

Note: Remaining capacity will be displayed on the monitor by turning the JogDial counter-clockwise in recording mode when STOP is selected.

● Disk End Buzzer DISK END BUZZ

The buzzer can be set up to beep at the point where the disk is full (remaining space 0 %). The setting is available only when STOP is set for DISK END MODE.

1. Move the cursor to DISK END BUZZER with the [▲] or [▼] button.
2. Rotate the JogDial to select the desired parameter.
The default is ON.

ON: Enables the buzzer beep at the disk end (remaining space 0 %).

OFF: Disables the buzzer beep.

● Play Priority Setup PLAY PRIORITY

This setting places priority on a specific access point for playing back the image data when access collisions take place.

1. Move the cursor to PLAY PRIORITY.
2. Select an access point with the JogDial and press the JogDial.

LOCAL: Places priority on the front panel operations.

NET PLAY: Places priority on the network access.

FTP GET: Places priority on the access to the FTP.

NONE: The latest operation has priority than others.

● Time Adjust Setup TIME ADJUSTING

IN and OUT terminals for a calibration signal are provided on the rear panel. The master unit supplies the calibration signal to the slave units one time at the specific hour every day. The slave unit accepts the signal through the IN terminal, and corrects its internal timer to the hour as far as the clock deviates within 15 minutes after or before the hour. This is convenient for synchronizing the internal clock with other connected devices.

TIME ADJUST SETUP	
TIME ADJUSTING	SLAVE
SET TIME→	9:00

1. Move the cursor to TIME ADJUST SETUP"↓ in the SYSTEM SETUP with the [▲] or [▼] button, and press the JogDial. The TIME ADJUST SETUP menu appears.

2. Select either MASTER or SLAVE with the JogDial, and press the JogDial.
The default is SLAVE.

MASTER: The recorder supplies the calibration OUT signal to the slave units.

SLAVE: The internal timer of the recorder is supplied the calibration signal from the master.

3. Select the hour with the JogDial, and press the JogDial.

The hours: From 00:00 to 23:00

Note: You need not set the hour when SLAVE is selected.

4. Press the [SETUP/ESC] button to go back to the SYSTEM SETUP menu.

● Auto Erasing Setup AUTO ERASING

The redundant records on the disk can be erased every day at 24:00 midnight. Day numbers specified by this setting means that the records during the number of days from the present will be protected, while the records older than that of the protected day will be erased.

SYSTEM SETUP (2 OF 2)	
PLAY PRIORITY	LOCAL
TIME ADJUST SETUP"↓	
AUTO ERASING	OFF

1. Move the cursor to AUTO ERASING with the [▲] or [▼] button.
2. Select the desired day number with the JogDial, and press the JogDial.

OFF: Auto erasing is not applied.

1 DAY: Only today's records of 00:00 onward are protected. Records before 24:00 of yesterday are erased.

2 to 10DAYS: Records before specified number of days are erased.

14, 30, 45, 60, 90, 120, 150, 180DAYS: Same as above.

Notes:

- The day number includes today as 1 day, therefore 2DAYS counts today and yesterday in number.
- Auto erasing is implemented at 24:00 midnight. Playing back will stop once when the time comes to 24:00, then will restart with different portion based on the renewed day count.

■ Alarm Setup ALARM SETUP

The digital disk recorder accepts alarm signals supplied from connected devices such as sensors or camera site equipment. The recorder by itself also generates an alarm signal when the preset motion detection is activated. Any alarm signal starts recording with the preset recording mode, field rate, and picture quality specified in the REC MODE menu described earlier. Alarm recording stops when the preset time has elapsed, the alarm [RESET] button on the front panel is pressed, or the ALARM RESET IN is supplied from the connected device. The recorder outputs an alarm recovery signal from the rear panel.

ALARM SETUP		
ALARM BUZZ	ON	
VIDEO LOSS	ON	
MONITOR MODE	SPOT	
VMD SETUP	↓	

● Alarm Buzzer ALARM BUZZ

Buzzer beeping is enabled or disabled when an alarm operates.

1. Move the cursor to ALARM BUZZ with the [▲] or [▼] button.
2. Rotate the JogDial to select ON or OFF.
The default is ON.

ON: Buzzer beeps while alarm is active.

OFF: Buzzer does not beep.

● Video Loss VIDEO LOSS

Video loss detection is enabled or disabled.

1. Move the cursor to VIDEO LOSS with the [▲] or [▼] button.
2. Rotate the JogDial to select ON or OFF.
The default is ON.

ON: Enables the recorder to detect video loss.

OFF: Ignores video loss.

● Monitor Mode MONITOR MODE

This setting specifies whether to allow the displayed picture to change to the alarm activated channel when an alarm operates.

1. Move the cursor to MONITOR MODE with the [▲] or [▼] button.
2. Select the parameter with the JogDial, and press the Jogdial.
The default is SPOT.

SPOT: Switches to the picture of the channel that the alarm operates.

OFF: Retains the previous display mode.

● Video Motion Detection VMD SETUP

A VMD or Video Motion Detector senses changes in the video signals within a preset area and supplies alarm output. When a change is detected, the recorder starts recording. The detection sensitivity and area are selected on this menu.

1. Move the cursor to VMD SETUP"↓" with the [▲] or [▼] button, and press the JogDial. The VMD SETUP window opens.

VMD SETUP	
CAM	SENS
1	OFF
2	LOW"↓"
3	MID"↓"
4	HIGH"↓"
5	OFF
6	OFF
7	OFF
8	OFF

2. Move the cursor to the desired line.
3. Rotate the JogDial to select the desired parameter, and press the JogDial.
The default is OFF.

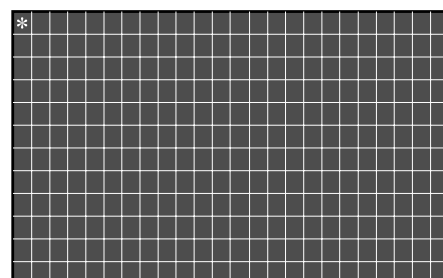
LOW: Low sensitivity.

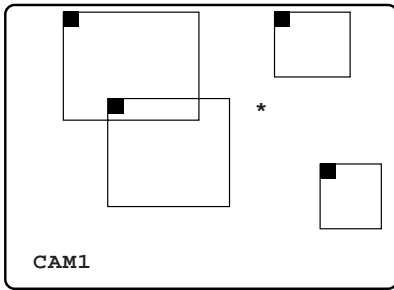
MID: Medium sensitivity.

HIGH: High sensitivity.

OFF: Motion detection is disabled.

The area setup window appears with an asterisk when other than OFF is selected. The asterisk represents the upper-left or bottom-right of the detection area. The division lines are not actually displayed on the monitor.

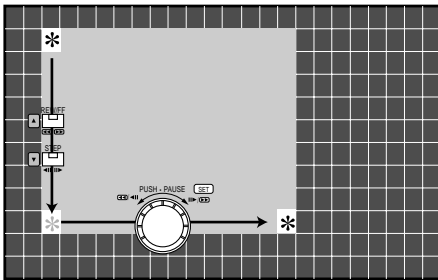




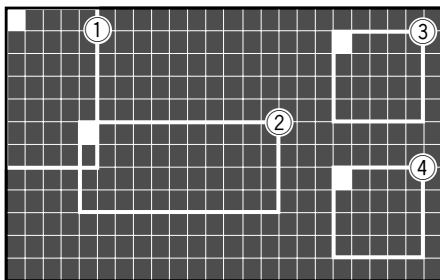
Notes:

- VMD should be used with an ordinary camera input to the unit. Select [OFF] to avoid useless VMD when a video multiplexer or combination camera supplies the input to the unit.
- Set the ALARM SUSPEND to ON when VMD is unnecessarily activated during the VMD setup.

- Set the upper-left end of the detection area. Move the asterisk to the right or left with the JogDial, and up or down by pressing the [▲] or [▼] button.

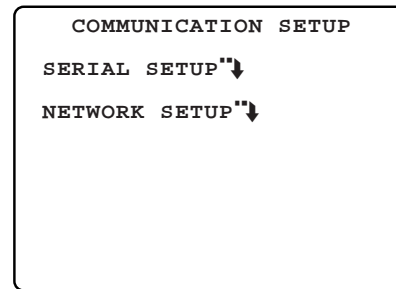


- Press the JogDial to enter the upper-left end of the detection area. The asterisk position is highlighted.
- Set the bottom-right end of the detection area similar to steps 3 and 4 above.
- Press the JogDial. The area is highlighted. Up to 4 areas can be selected. These may partially overlap. Repeat steps 3 to 6 to select more areas. To deselect an area, move the cursor to the upper-left end of the area, and press the JogDial.



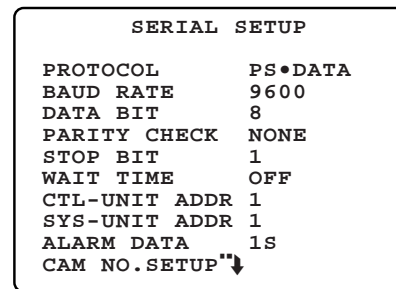
■ Communication Setup COMMUNICATION SETUP

Communication parameters are set to match those of the connected devices and the system configuration. The serial port setup and network setup are made.



■ Serial Setup SERIAL SETUP

The SERIAL SETUP menu appears when it is selected in the COMMUNICATION SETUP menu.



Note: Parameters marked with * in the following pages are default settings applied to VCR.

● Protocol PROTOCOL

- Move the cursor to PROTOCOL with the [▲] or [▼] button.
- Select a suitable protocol with the JogDial, and press the JogDial. The default is PS•DATA.

PS•DATA: Select when the communication chain uses the PS•DATA protocol.

This selection enables the DATA terminal on the rear panel for communication.

VCR: Select when other than PS•DATA is used.

This selection enables the RS-232C terminal on the rear panel for communication.

Note: Parallel use of the DATA and RS-232C terminals is not possible.

● Baud Rate BAUD RATE

1. Move the cursor to BAUD RATE with the [▲] or [▼] button.
2. Select the rate with the JogDial, and press the JogDial.
The default value is 9600 bits per second.

4800: 4 800 bps
9600: 9 600 bps*
19200: 19 200 bps

● Data Bit DATA BIT

1. Move the cursor to DATA BIT with the [▲] or [▼] button.
2. Select the bit length with the JogDial.
The default value is 8 bits.

7: 7 bits*
8: 8 bits; select 8 when using the PS•DATA protocol.

● Parity Check PARITY CHECK

1. Move the cursor to PARITY CHECK with the [▲] or [▼] button.
2. Select the check mode with the JogDial.
The default is NONE.

NONE: No parity check
EVEN: Even parity
ODD: Odd parity*

● Stop Bit STOP BIT

1. Move the cursor to STOP BIT with the [▲] or [▼] button.
2. Select the number of stop bits with the JogDial.
The default is 1.

1: 1 bit*
2: 2 bits

● Wait Time WAIT TIME

The unit retransmits data after waiting the specified time if there is no response from the connected device.

1. Move the cursor to WAIT TIME with the [▲] or [▼] button.
2. Select the waiting time with the JogDial.
The default is OFF.

OFF: Retransmission is disabled. *

100 MS: 100 m seconds

200 MS: 200 m seconds

1 S: 1 second

● Control Unit Address CTL-UNIT ADDRESS (exclusive for PS•DATA)

When the recorder performs as a controller in the system, the unit address can be set from the setup menu on the monitor.

1. Move the cursor to CTL-UNIT ADDRESS with the [▲] or [▼] button.
2. Select the address with the JogDial.
The default value is 1.

Assignable address: From 1 to 99, must be unique in the chain.

Note: Assign an address except 1 to WJ-HD200 when using a system controller in the system.

● System Unit Address SYS-UNIT ADDRESS (exclusive for PS•DATA)

When the recorder performs as a system unit, the unit address can be set from the setup menu on the monitor.

1. Move the cursor to SYS-UNIT ADDRESS with the [▲] or [▼] button.
2. Select the address with the JogDial.
The default value is 1.

Assignable address: From 1 to 99, must be unique in the chain.

● Alarm Data ALARM DATA (exclusive for PS•DATA)

The recorder pauses before sending a notice to the connected system controller when an alarm operates.

1. Move the cursor to ALARM DATA with the [▲] or [▼] button.
2. Select the parameter with the JogDial, and press the Jogdial.
The default is 1S.

OFF: Select this when no system controller is connected.

0S: Pauses no time.

1S: Pauses 1 second.

5S: Pauses 5 seconds.

● Camera Number Setup CAM NO. SETUP (exclusive for PS·DATA)

Camera numbers will be used in a PS·DATA chain when you select the desired camera to control it, operating on a system controller.

1. Move the cursor to CAM NO. SETUP with the [▲] or [▼] button, and press the JogDial. The CAM NO. SETUP menu opens.

CAM NO. SETUP	
CAM-PORT	CAM NO.
1	001
2	002
3	003
4	004
5	005
6	006
7	007
8	008

2. Move the cursor to the desired line with the [▲] or [▼] button.
3. Select the number with the JogDial, and press the JogDial.
The default number is the same as the CAM-PORT number.
- Assignable number:** From 001 to 128, each number must be unique in the chain.
4. Press the [SETUP/ESC] button to go back to the SERIAL SETUP.

■ Network Setup NETWORK SETUP

NETWORK SETUP		
LINE SPEED	AUTO	
HTTP PORT	→ 00080	
HOST NAME	→ WJ-HD200••	
DHCP	OFF	
IP ADDR	→ 192.168.000.010	
NETMASK	→ 255.255.255.000	
GATEWAY	→ 192.168.000.001	

Note: The system will restart after the menu setup window is closed when any parameter in this window has been changed.

● Line Speed LINE SPEED

1. Move the cursor to LINE SPEED with the [▲] or [▼] button.
2. Select the parameter with the JogDial, and press the JogDial.
The default is AUTO.

AUTO: The speed is automatically selected.

100M_FULL: 100 mega byte, full duplex

100M_HALF: 100 mega byte, half duplex

10M_FULL: 10 mega byte, full duplex

100M_HALF: 10 mega byte, half duplex

● HTTP Port HTTP PORT

Set an HTTP port number.
The default is 80.

Available Port Number: From 00000 to 65535

● Host Name HOST NAME

A maximum of 10-digit host name is entered using alphanumeric and symbols.
The default is WJ-HD200••.

● Dynamic Host Configuration Protocol DHCP

Dynamic Host Configuration Protocol is enabled or disabled.
The default is OFF.

Note: When ON is selected, you cannot enter IP address, netmask, or gateway. The host gives these parameters.
The given parameters will be displayed after getting IP address from the DHCP server.

● IP Address IP ADDRESS

The default is "192.168.000.010".

● Netmask NETMASK

The default is "255.255.255.000".

● Gateway GATEWAY

The default is "192.168.000.001".

■ Switcher Setup SWITCHER SETUP

SWITCHER SETUP		
START DISPLAY	QUAD-4A	
MULTI SEL MODE	ALL	
SEQUENCE SETUP"↓		
CAMERA VIEW SETUP"↓		

Video switcher functions are programmed in this menu setup.

● Start Display START DISPLAY

The image in the selected form will be displayed on the monitor when the recorder is turned on.

Single Image: CH 1 to CH 8

Quad Image: QUAD-4A (including 1-4), QUAD-4B (including 5-8)

Multi Image: 9SCREEN (including 1-8)

Sequence: SPOT SEQ, MULTI SEQ

● Multiscreen Selection MULTI SEL MODE

When the [MULTI SCREEN SEL] button on the front panel is pressed, the monitor display will change as follows depending on the selection.

QUAD ONLY: QUAD-4A → QUAD-4B → QUAD-4A

ALL: QUAD-4A → QUAD-4B → 9SCREEN → QUAD-4A

● Sequence Setup SEQUENCE SETUP

SEQUENCE SETUP		
MULTI SEQ SETUP"↓		
SEQUENCE TIMING	INT	
AUTO SKIP	ON	
SPOT SEQ SETUP"↓		
SEQUENCE TIMING	INT	
AUTO SKIP	ON	

1. Move the cursor to SEQ SETUP in the SWITCHER SETUP menu, and press the JogDial.
The SEQ SETUP menu opens.

2. Select either MULTI SEQ SETUP or SPOT SEQ SETUP with the [▲] or [▼] button, and press the JogDial. The selected menu opens.

● Multiscreen Sequence Setup MULTI SEQ SETUP

Open the QUAD SEQ SETUP menu to program the sequence steps for displaying quad-split and single input images.

MULTI SEQ SETUP		
STEP	CAM	SEC
1 →	QUAD-4A	2S
2 →	QUAD-4B	2S
3 →	-	2S
4 →	-	2S
5 →	-	2S
6 →	-	2S
7 →	-	2S
8 →	-	2S

1. Move the cursor to the desired step using the [▲] or [▼] button.

2. Select a camera number with the JogDial, and press the JogDial.
The default camera number is identical to the step number.

Available camera: From 1 to 8 individually, 4A(1-4), or 4B(5-8)

Note: The recorder will skip the step you assigned "-".

3. Select duration for the step with the JogDial, and press the JogDial.

Available duration: 2-30 S

4. Repeat step 1, 2, and 3 until all steps are programmed, or press the [SETUP/ESC] button to return to the SEQUENCE SETUP menu.

5. Move the cursor to SEQUENCE TIMING in the SEQ SETUP menu.
Select INT or EXT with the JogDial, and press the JogDial.
The default is INT.

INT: Forwards the step when the assigned time elapses.

EXT: Forwards the step when the SEQ IN signal is input to the rear panel.

6. Move the cursor to AUTO SKIP with the [▲] or [▼] button.
Select ON or OFF with the JogDial, and press the JogDial.
The default is ON.

ON: The sequence skips the step where no video is input.

OFF: The step will be displayed as a blackout screen.

● Spot Sequence Setup SPOT SEQ SETUP

Open the SPOT SEQ SETUP menu to program the sequence steps for displaying single input images.

SPOT SEQ SETUP		
STEP	CAM	SEC
1 →	1	2S
2 →	2	2S
3 →	3	2S
4 →	4	2S
5 →	5	2S
6 →	6	2S
7 →	7	2S
8 →	8	2S

1. Move the cursor to the desired step using the [▲] or [▼] button.

2. Select a camera number with the JogDial, and press the JogDial.
The default camera number is identical to the step number.

Available camera: From 1 to 8.

Note: The recorder will skip the step you assigned “—”.

3. Select duration for the step with the JogDial, and press the JogDial.

Available duration: 2-30 S

4. Repeat step 1, 2, and 3 until all steps are programmed, or press the [SETUP/ESC] button to return to the SEQUENCE SETUP menu.

5. Procedures for SEQUENCE TIMING are the same as step 5 in MULTI SEQ SETUP.

6. Procedures for AUTO SKIP are the same as step 6 in MULTI SEQ SETUP.

● Camera View Setup CAMERA VIEW SETUP

Open the CAMERA VIEW SETUP menu to program the live image of each camera channel to display or veil on the monitor.

CAMERA VIEW SETUP	
CAM	MODE
1	ON
2	ON
3	ON
4	ON
5	OFF
6	OFF
7	OFF
8	OFF

1. Move the cursor to the desired camera using the [▲] or [▼] button.

2. Select ON or OFF with the JogDial, and press the JogDial.
The default is ON.

ON: Live image of the channel is displayed.

OFF: Blackout image is displayed.

3. Repeat step 1 and 2 until all channels are programmed, or press the [SETUP/ESC] button to return to the SWITCHER SETUP menu,

Notes:

- Recording will be carried out regardless of this setting.
- The recorded images of the channel will be played back and displayed on the monitor even if OFF is selected.

■ System Information SYSTEM INFORMATION

SYSTEM INFORMATION			
HDD1	HOUR	METER	10000H
HDD2	HOUR	METER	10000H
HDD	CAPACITY		135.95G
DEFAULT→		SET→	
SYSTEM	VERSION		X.XX
SYSTEM	LOG		↓

● HDD Hour Meter HDD HOUR METER

The meter shows how many hours each hard disk has been operated in playback, recording and idle. The built-in HDD needs replacement when the hour meter reads around 30 000 H.

● HDD Capacity HDD CAPACITY

The total usable capacity of the built-in hard disk is indicated.

● Default DEFAULT

This enables the recorder to restore all setup data to the default values.

1. Press the JogDial to move the cursor to DEFAULT.
2. When the cursor is on SET→, press the JogDial again.
3. Select YES or NO with the JogDial, and press the JogDial.
The default is NO.

NO: Current setup data is retained.

YES: Current setup data is reset to the default values.

When all setup data are reset to the default, "SET DONE" is displayed for a few seconds, and it turns to SET→.

Note: The recorder will restart when the network setup has been changed and the menu is closed.

● System Version SYSTEM VERSION

This line displays the version number of the installed system software. Version number will help you when updating the software.

● System Log SYSTEM LOG

The system log is listed on the monitor with event number, date, time, and cause.

SYSTEM LOG (1 OF 10)			
NO.	DATE	TIME	CAU
99	FEB28.03	6:50:06	WR1
98	FEB28.03	5:23:51	HD1
97	FEB20.03	10:10:23	HD2
96	FEB15.03	23:50:42	RV1
95	FEB11.03	23:52:10	EMP
94	JAN31.03	19:43:32	THE
93	JAN30.03	19:50:14	LS1
92	JAN15.03	19:52:54	TM2
91	JAN10.03	10:40:22	TM4
90	JAN01.03	10:50:20	LS1

Abbreviation	Cause	Description
THE	Thermal error	Temperature exceeds the operating range.
WR1	Writing error	Writing error on HDD
WR2		
RV1	HDD automatically removed	Master HDD
RV2		Slave HDD
HD1	S.M.A.R.T detects on error on HDD.	Master HDD
HD2		Slave HDD
EMP	HDD empty	Warning, HDD is nearing to the end.
TM*	ALM	Terminal alarm event was logged, but no picture recorded. * = 1-8
VM*	VMD	VMD event was logged, but no picture recorded. * = 1-8
LS*	LOSS	Video input loss on channel # (*). * = 1-8
PC*	PC	Alarm has been input from the PC.
POW	Power	Power disconnection due to electricity failure/trouble has been detected.
ERR	Error	Errors other than shown above

OPERATING PROCEDURES

CONTROLLING VIDEO INPUTS & MONITORS

Operations on the front panel can control video inputs on the spot monitor or multi-screen monitor.

■ On the Spot Monitor

● Selecting the Spot Monitor

1. Press the [SPOT/MULTI] button to turn the LED in the button on. The spot monitor is ready to be operated.

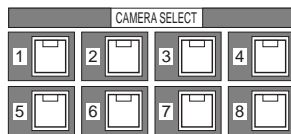


2. Follow the descriptions below for each monitoring mode on the spot monitor.

● Viewing a Single Live Spot

A selected live image is displayed on the spot monitor until a new input selection is made.

1. Press a desired numeric button from among 1 – 8.



The selected image appears on the monitor.

2. Press another numeric button to select a new input.

■ On the Multi-screen Monitor

● Selecting the Multi-screen Monitor

1. Press the [SPOT/MULTI] button to turn the LED in the button off. The multi-screen monitor is ready to be operated.



2. Follow the descriptions below for each monitoring mode on the multi-screen monitor.

● Viewing a Single Live

The multi-screen monitor can display a single live spot image.

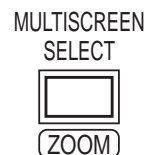
Operating procedures are the same as that of “On the Spot Monitor” except selecting the multi-screen monitor.

In this condition, the spot monitor will display the same image as the multi-screen monitor.

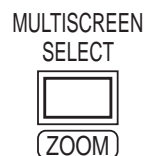
● Zooming a Single Live

A single live or playback image on the multi-screen monitor can be zoomed.

1. Display the desired single live or playback image on the multi-screen monitor pressing the [ZOOM] button appropriate times if necessary.



2. Hold down the [ZOOM] button for 2 seconds to enlarge the image.



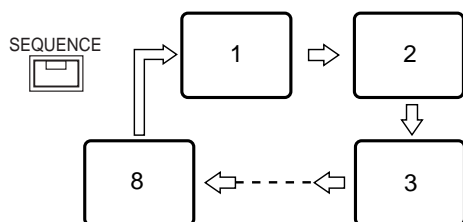
3. Rotate the JogDial to move the zoomed area to the right and left, or press the [▲] or [▼] button to move the area up or down.
4. Press the JogDial repeatedly to select an appropriate enlargement ratio.
Pressing the JogDial : Increases the ratio (x1 → x2 → x4)
5. Hold down the [ZOOM] button for 2 seconds to cancel the zoom mode.

● Viewing a Single Live Sequence

The multi-screen monitor and spot monitor can display a single live sequence.

A series of input images is displayed in succession on the monitor. One sequence can be programmed in the menu setup with the input assignment and display duration for each step.

1. Select the multi-screen monitor.
2. Switch the monitor display to a single live.
3. Press the [SEQUENCE] button to run the sequence.
The LED in the [SEQUENCE] button lights up.



While running, the LED of the input image presently displayed on the monitor will illuminate in the corresponding numeric button.

2. During the sequence, press the [SEQUENCE] button to pause. The LED in the [SEQUENCE] button blinks.



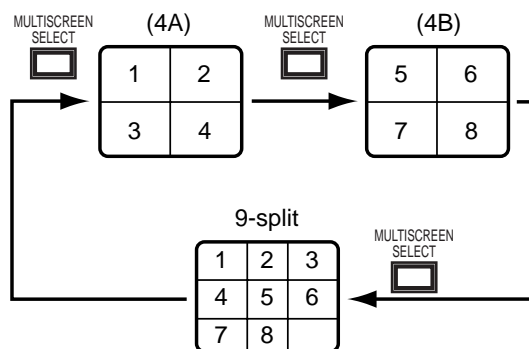
3. Press the [SEQUENCE] button to restart the sequence.
The LED turns to a steady light.
4. Press any of the numeric buttons to quit the sequence and return to spot monitoring.

Note: Auto Skip function can be programmed in the menu setup to be applied to the sequence to skip any steps where no video signal is present.

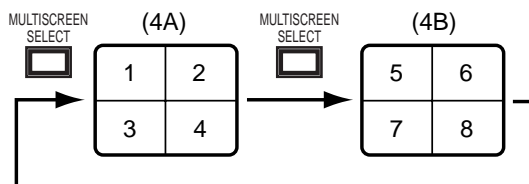
● Viewing a Multi-screen Live

The multi-screen monitor can display the multi-screen live images. There are some split patterns: Quad A (input 1, 2, 3, 4), Quad B (input 5, 6, 7, 8), and 9-split (input 1-8).

1. Press the [MULTI SCREEN SELECT] button repeatedly.
The pattern changes every time the button is pressed depending on the setup for MULTI SEQ SETUP.
When ALL is selected:
Pattern 4A → Pattern 4B → Pattern 9 → Pattern 4A



When QUAD ONLY is selected:
Pattern 4A → Pattern 4B → Pattern 4A



● Viewing Quad Live Sequence

A series of quad images is displayed in succession on the monitor. One sequence can be programmed in the menu setup and display the duration for each step.

1. Select the multi-screen monitor.
2. Change the monitor display to the multi-screen live mode.
3. Press the [SEQUENCE] button to run the sequence.
The LED in the [SEQUENCE] button lights up.

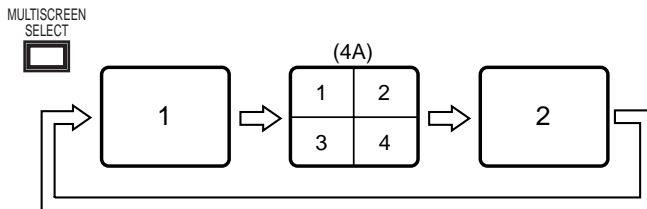


Notes:

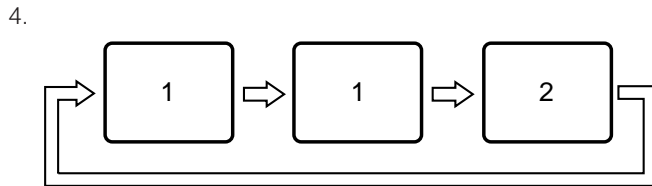
- When the single live mode is activated during the sequence, both the multi-screen monitor and spot monitor can be switched to the single live image.
- During the sequence, when a single live image is displayed on a multi-screen monitor, a spot monitor display is switched to the same image.

- During the sequence, the LED's of the [CAMERA SELECT] buttons light up corresponding to the selected cameras that send images to the monitor.

Multi-screen monitor



Spot monitor



During the sequence, press the [SEQUENCE] button to pause. The LED in the [SEQUENCE] button blinks.

5. Press the [SEQUENCE] button to restart the sequence. The LED turns to a steady light.
6. Press any of the numeric buttons to quit the sequence and return to spot monitoring.

Note: Auto Skip function can be programmed in the menu setup to be applied to the sequence to skip any steps where no video signal is present.

ALARM CONTROL FUNCTION

The recorder performs alarm functions to warn the system operators that a remarkable event happened.

■ Alarm Input

There are three alarm inputs to the recorder that allow the recorder to output warnings.

● Connected Alarm Sensors

A maximum of eight sensors can be connected to the terminals on the rear panel. Sensors may be installed in such places as parking lots or reception desks where cars and visitors come in and go out.

● Built-in Motion Detector

The recorder detects the motion, individually for eight video inputs, whether the video signal changes certain amount.

● Built-in Video Loss Detector

The recorder detects the disconnection of the video inputs. The disconnected channel image will not be recorded.

■ Alarm Output

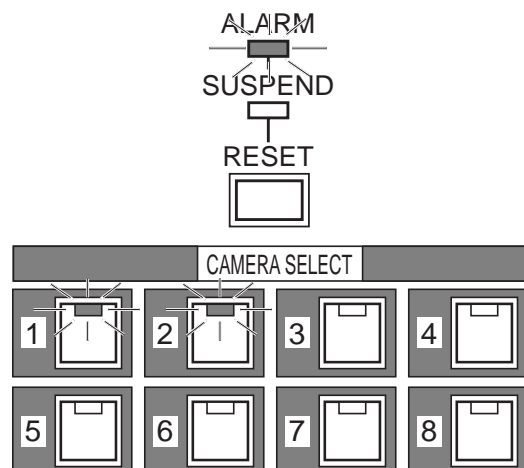
The recorder performs the following actions when an alarm is input.

● Front Panel Indicators

When an alarm is received, the ALARM indicator blinks and the LED in the corresponding [CAMERA SELECT] button blinks. More LED will blink when more alarm-inputs arise.

The LED will stop blinking when the preset time has elapsed (Auto Reset), when the [RESET] button is pressed on the front panel (Manual Reset), when the external reset is received on the rear panel (External Reset), or when the video loss channel restores (Video Loss).

The ALARM indicator will change from blinking to a steady light when Auto Reset or External Reset is implemented. This steady light notifies the system operator that there have been alarm activations that were not manually reset yet.

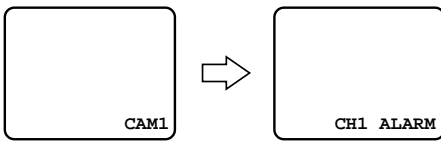


● Monitor Display

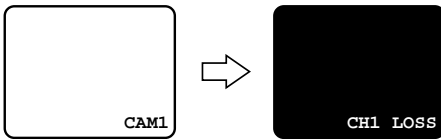
There are two monitoring modes, alarm associated (SPOT) mode and alarm ignore (OFF) mode, depending on the selection for MONITOR MODE in the ALARM SETUP menu. Typical cases are described below for each setup.

Alarm Associated Mode

- The image of the alarm-activated input is displayed on the multi-screen monitor in a single spot mode, interrupting whatever the live, playback, single or multiple image previously displayed. When a new alarm is received, the lately activated input image will be displayed.
- The camera title and “ALARM” indication on the monitor will be alternately displayed while blinking. For example “CH1 ALARM” when an alarm is received from CH1, will be displayed on the monitor.



- When a camera signal loss has occurred, the monitor display switches to a blackout screen with the channel number indication, for example “CH 1 LOSS”.



Alarm Ignore Mode

- The images being displayed will remain even when an alarm arises, but “ALARM” status indication will appear.

The following outputs for each channel will function or not depending on the setting in the TRIGGER ACTION SETUP menu.

- The following will not function when OFF is selected for the channel.
- The following will function when REC&ALM is selected for the channel.
- Only alarm recording will function when REC is selected for the channel.

● Alarm Recording

The recorder starts alarm recording with the preset rate and picture quality, if applicable. See ALARM RECORDING for details.

● Alarm Buzzer

The buzzer sounds when an alarm is input, if applicable.

● Alarm Log Recall and Search

The alarm events are stored in the log for later reference.

● Alarm Status Output

The active status and recovery status are output to the external devices via the terminals on the rear panel.

● Alarm Notice Mail

When connected to the Ethernet, the recorder sends an e-mail to notify the preset URL that the alarm is activated.

● Resetting Alarm

See below.

● Suspending Alarm

See below.

■ Resetting Alarm

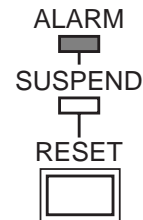
The activated alarm is reset respectively with any of the inputs: manual (all) reset, auto reset, external reset, or pressing the [REC STOP] button.

Resetting changes the status of the recorder as follows.

- The recorder stops alarm recording.
- The buzzer, if activated, stops beeping.
- The recorder outputs an alarm recovery signal from the rear panel.
- The Alarm Out signal on the rear panel is reset.

● Manual (All) Reset

Pressing the [RESET] button on the front panel will clear all operating alarms, and allow the blinking or lit ALARM indicator to go off.



● Auto Reset

The activated alarm event is reset when the AUTO RESET time has elapsed, or the lost video has been recovered. The ALARM indicator changes from blinking to a steady light.

● External Reset

The activated alarm event except video motion detection is reset when the recorder receives an external reset signal from the connected device via the REMOTE/ALARM connector on the rear panel.

The ALARM indicator changes from blinking to a steady light.

● Pressing REC STOP Button

Pressing the [REC STOP] button resets alarm status and recording when MONITOR MODE is set to OFF. When SPOT is set, only the [ALARM RESET] button will reset alarm status and recording.

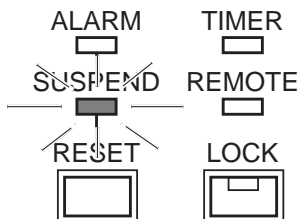


■ Suspending Alarm Input

This function may be convenient during setup procedures. When enabled, any alarm input is ignored and the recorder performs as follows.

- The alarm event will be stored in the alarm log.
- The recorder enters alarm recording.
- The alarm buzzer does not sound.
- The SUSPEND indicator lights up.

1. Hold down the alarm [RESET] button and [LOCK] button simultaneously to enable the suspension function. The SUSPEND indicator lights up.



2. Do as same as above to reset the suspension function. The indicator turns off.

■ Alarm Log Recall & Search

The ALARM RECALL window lists the alarm event log in chronological order with event number, date, time, and the activation source. A maximum of 2 000 events can be stored.

ALARM RECALL			YEAR03
NO.	DATE	TIME	ALM
1543	OCT30	23:58:12	T1
1542	OCT30	23:52:54	V2
1541	OCT30	23:40:29	V3
1540	OCT30	23:39:50	T4
1539	OCT30	23:35:41	L2
1538	OCT30	23:30:22	L1
1537	OCT30	23:25:55	T2
1536	OCT30	23:21:09	T2
(TOTAL 1543EVENTS)			
TO SEARCH PUSH T&D KEY			

ALARM RECALL			YEAR03
NO.	DATE	TIME	ALM
0003	OCT20	23:52:54	V2
0002	OCT20	23:51:54	V2
0001	OCT20	23:50:54	V2
PUSH JOG→DATA CLEAR.			
(TOTAL 1543EVENTS)			
TO SEARCH PUSH T&D KEY			

T: Alarm terminal was activated.

V: VMD was activated,

P: PC notified an alarm event.

Note: In some cases the log displayed in the ALARM RECALL list may apply to the previous alarm record that was overwritten after selecting CONTINUE for the DISK END MODE. This is because the alarm log is updated later than the image data.

● To brows through the log

1. Hold down the JogDial for 2 seconds. The monitor displays the ALARM RECALL list.
2. Rotate the JogDial to scroll up or down the page. Scrolling speed is selected in the menu setup.
3. Hold down the JogDial for 2 seconds to quit the ALARM RECALL list and go back to the previous window.

● To sort by channel

1. Hold down the JogDial for 2 seconds to display the ALARM RECALL list. The log of the all channel appears.
2. Press the desired channel [CAM SEL] button. The indicator on the button lights up, and only the log of the selected channel will be displayed.
3. Press another channel button to select a new channel.
4. To return to the all-channel list, press the button of the selected channel (now being lit) or the [MULTISCREEN SELECT] button.

● To search for playback

1. Move the cursor to the desired event in the list, using the [▲] or [▼] button.
2. Press the [PLAY] button to play back the recorded picture. The LED in the [PLAY] button lights up. The alarm log disappears on the monitor.
3. Press the [STOP] button to stop playback. The alarm log appears again on the monitor.
4. Hold down the JogDial for 2 seconds to quit the alarm log search.

● To erase the log

All event records can be erased.

1. Move the cursor to "PUSH → DATA CLEAR" then press the JogDial.
2. Rotate the JogDial to select YES or NO.

YES: Enables the log erasure.

NO: Disables the log erasure.

3. Press the JogDial to carry out the selection.

Note: You can access the picture recorded on the disk by time & date search even after the erasure.

RECORDING

Notes:

- When SIMUL REC&PLAY (simultaneous recording and playback) is set to OFF in the setup, any recording will stop playback, and start the recording. Playback is unavailable while recording.
- When set to ON, recording is available while playing back.
- Recording rate will degrade to 15 FPS while displaying a quad split screen.

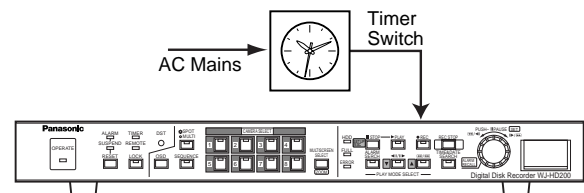
■ Internal Timer Recording

When INT is set for TIMER in the WJ-HD200 MAIN menu, the reservations based on the internal timer will take effect. Internal timer recording begins when the reserved start time comes and continues until the reserved end time comes. Up to four programs, containing four events in each can be assigned to the weekly and/ or daily schedule.

PROG1 SETUP			
NO.	START	END	MODE
1→	8:00	12:20	SET"↓
2→	13:00	15:00	SET"↓
3→	—:—	—:—	—
4→	—:—	—:—	—

Note: When SIMUL REC&PLAY is set to OFF, a reserved recording interrupts playback and starts at the reserved start time.

■ Power-on Recording

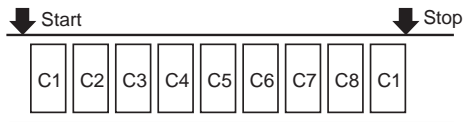


For power-on recording, select EXT for TIMER in the WJ-HD200 MAIN menu. The recorder starts recording when AC power is supplied.

This enables the disk recorder to start recording everyday at a specific time with use of a timer switcher that controls the AC mains supplied to the recorder. The power switch on the rear of the recorder must be turned on for this case.

Manual Recording

Manual recording is available when OFF is set for TIMER in the WJ-HD200 MAIN menu. The menu setup can exempt specific inputs from manual recording for the purpose of reserving the disk capacity. The recording mode (SF-48, for example), picture quality (fine) and recording rate (30 fps) are set in the menu setup by specifying two parameters among the three. The SF-48H is an example having a picture quality of especially fine grade and 48 hours of recording capacity.



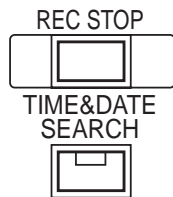
1. Press the [REC] button on the front panel to start recording. The indicator in the [REC] button lights up while the [CAM SEL] button of the channel indicates and the channel image is displayed on the multi-screen monitor.



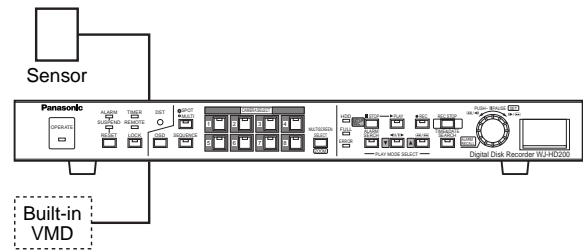
Orange: The channel image is not displayed.
Yellow: The channel image is displayed.

The multi-screen monitor displays the recording images while the corresponding input indicators on the front panel light in yellow.

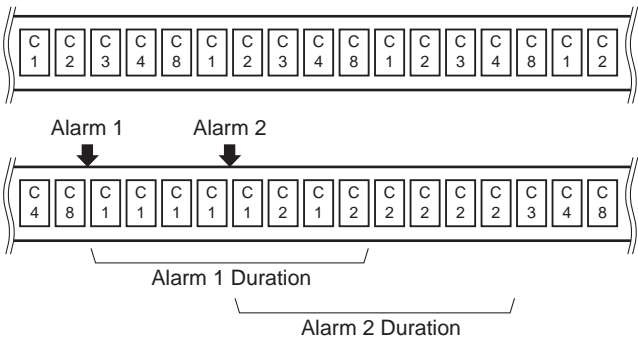
2. Hold down the [REC STOP] button for 2 seconds to stop recording. The REC indicator turns off.



Alarm Recording



Alarm recording starts when an externally connected sensor is turned on, the built-in VMD (Video Motion Detector) or the built-in video loss detection is activated. Alarm recording will precede, then stop after elapsing the post-recording time. If more than one alarm arise, for instance ALM1 and ALM2, the images of the activated inputs are recorded on the disk as shown in the figure.



Note: HDD indicator will continue to blink for the equivalent period to the specified pre-alarm length after ending alarm recording.

PLAYBACK

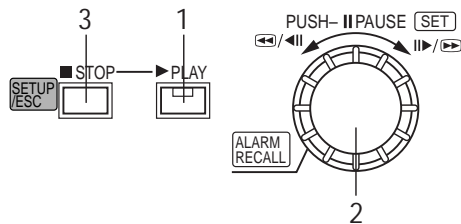
In playback modes, the recorded image data are played back.

Notes:

- Alarm recording will interrupt playback if SIMUL REC&PLAY is set to OFF, or will allow playback to continue if set to ON.
- Operation of the [PLAY] button will be ignored if the disk is empty, for instance, when the recorder is used for the very first time or right after formatting of the disk.
- The latest recorded image is displayed on the monitor right after recording finishes. Search for the desired image by skip playback before starting playback.

Normal Playback

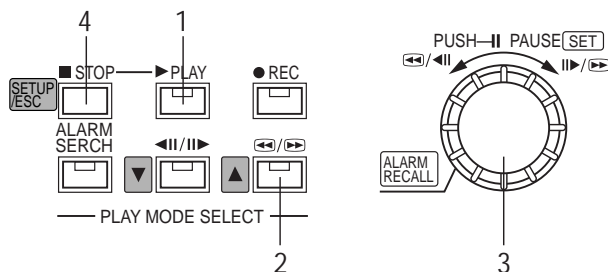
The pictures recorded on the disk are played back sequentially.



1. Press the [PLAY] button to start playback.
2. Press the JogDial [PUSH-PAUSE] to pause and restart playback.
3. Press the [STOP] button to stop playback.

Skip Playback

Picture search is available in quick forward and backward playback. The monitor displays the skip speed as PLAY, 2PLAY, 1FF, 2FF, 3FF, and so forth. The asterisk indicates that images are played back continuously without skipping.

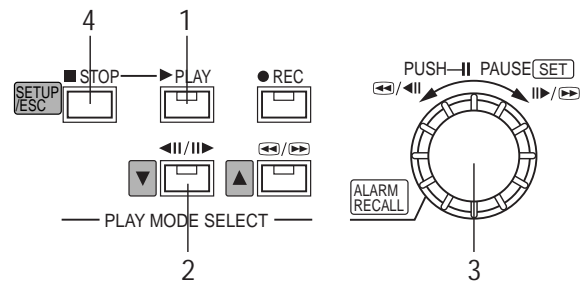


1. Press the [PLAY] button to start playback.
2. Press the [REW/FF] button to start skip playback. The LED in the button lights up.

3. Rotate the JogDial clockwise to move forward in the recorded data or counter-clockwise to move backward. The more turns you rotate the JogDial, the faster the skip speed will be.
4. Press the [STOP] button to stop playback.

Step Playback

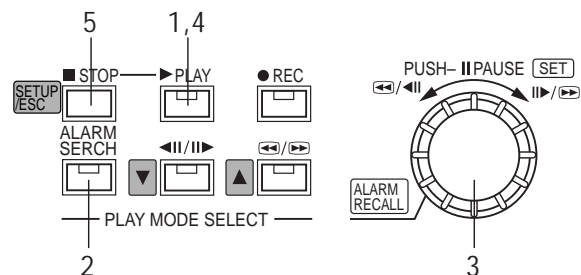
A minute search is made for a desired picture field by field.



1. Press the [PLAY] button to start playback.
2. Press the [STEP] button to start step playback. The LED in the button blinks.
3. Rotate the JogDial clockwise to advance to the next later field or counter-clockwise to rewind to the next older.
4. Press the [STOP] button to stop playback.

Alarm Search Playback

Alarm records on the disk are searched while viewing the beginning image of the record.

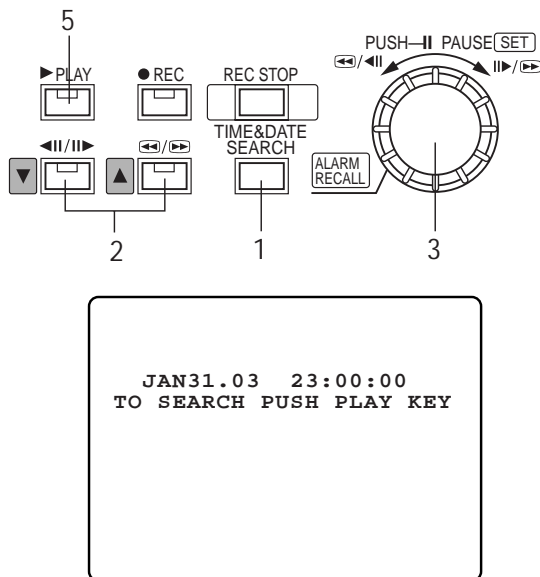


1. Press the [PLAY] button to start playback.
2. Press the [ALARM SEARCH] button to start alarm search playback. The LED in the button lights up.
3. Rotate the JogDial one click clockwise or counter-clockwise. The display advances to the beginning of the next later or next older record. Repeat until the desired record is displayed.

- Press the [PLAY] button to play back the searched record.
- Press the [STOP] button to stop playback.
Note: “Alarm Search Playback” and “Alarm Log Recall” are similar, but different in operations. Refer to ■ Alarm Log Recall & Search on page 46.

■ Time & Date Search Playback

A picture record of a specified time and date is played back.



- Press the [TIME & DATE SEARCH] button. The LED in the button lights up. The monitor displays the time & date search window.
- Press the [▲] or [▼] button to move the cursor to the next position.
- Rotate the JogDial clockwise to increase the parameter or counter-clockwise to decrease it.
- Repeat the steps 2 and 3 above until the desired parameters are selected.
- Press the [PLAY] button to start playback. The monitor displays the single spot image when an input is selected or nine-split image when all input is specified. The recorder stops searching when the playback reaches to the end of the record.

- Repeat from step 1 to search for another time and date or press the [TIME & DATE SEARCH] button to cancel the function. Pressing the [STOP] button will also end the searching.

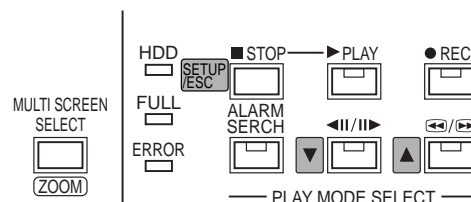
Note: Searching may take the recorder 18 seconds at worst

■ Multi-screen Playback

You can view a multiple playback image displayed in 4-split or 9-split pattern on the monitor at a time.

• Normal Playback

Press the [PLAY] button to start normal playback. The image data recorded on the disk are sequentially played back, and the monitor displays images in the



single display mode or multi-screen display mode.

• Multi-screen Playback

Press the [MULTI SCREEN SELECT] button appropriate times. The monitor display changes as follows. The LED's in the [MULTI SCREEN SELECT] button and respective input buttons will light up.

Single Image → Quad A (4A/comprising input 1, 2, 3, and 4) → Quad B (4B/ input 5, 6, 7, and 8) → Nine-split (input 1 – 8) → Quad A → Quad B → Nine-split

• Specific Input Playback

Press the respective input button. The images of the selected input is continuously played back and displayed on the monitor.

• STOP Playback

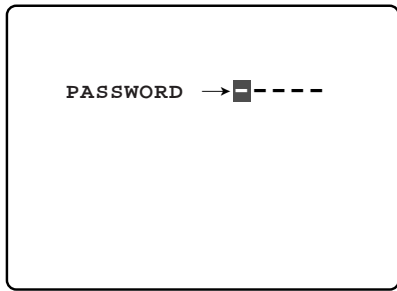
Press the [STOP] button to stop playback.

Note: when the playback proceeds to where recording is executed on the disk, the recorder will pause playback and freeze the displayed image on the monitor.

LOCK/UNLOCK BUTTONS

■ Password Verification

When a locked button is pressed, the key locked warning appears on the monitor for 2 seconds, then it turns to the password prompt.

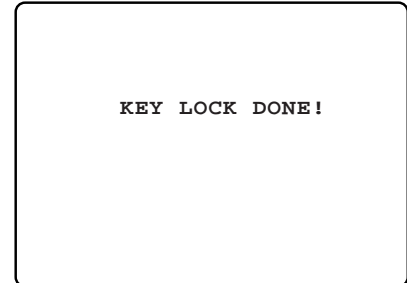


1. Enter your five-digit password using the [CAM SELECT] buttons (1-8). The buzzer shortly beeps once, and the entered digit changes from “-” to “*” on the monitor.
2. The prompt window will display “KEY UNLOCKED!” for 2 seconds, and the buzzer beeps twice if the correct password is entered.
The monitor returns to the previous display. The recorder allows access to the front panel controls if a button operation takes place within 5 minutes of password entry.
3. Retry verification when password error appears on the monitor.

The recorder will exit from verification if there is no operation within 30 seconds.

■ Enabling Button Lock

1. You need to register passwords in the SYSTEM SETUP window prior to operate your system.
2. Press the [LOCK] button for 2 seconds.
The buzzer shortly beeps twice, and the LED in the button lights up. The “KEY LOCKED DONE!” message appears on the monitor.



Note: Set PASSWORD LOCK to OFF if you do not want the recorder to revert to button lock mode when no operation takes place within 5 minutes.

WJ-HD200 NETWORK OPERATION

PREPARATIONS

■ Computer Requirements

The personal computer must have the following minimum requirements.

OS:

One of the following operating systems:

Windows98 Second Edition

Windows2000

Windows Millennium Edition

Windows XP Professional or Home Edition.

Browser:

One of the following browser software:

Microsoft Internet Explorer 5.5SP2, 6.02SP1

Note:

- The Netscape browsers are not applicable.

Display:

1024 x 768 pixels or more

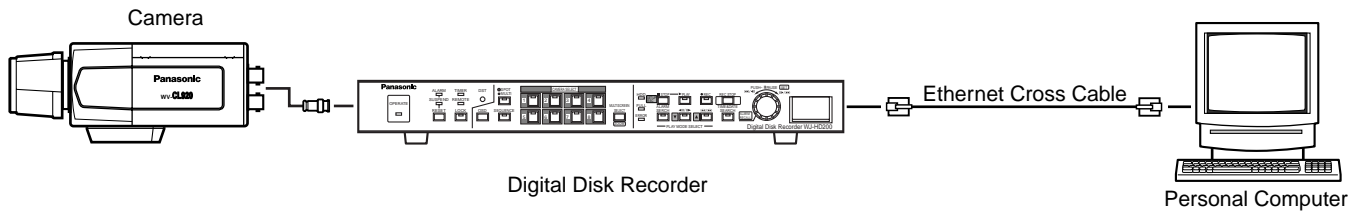
Trademarks

Microsoft, Windows, WindowsXP and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States of America and/or other countries.

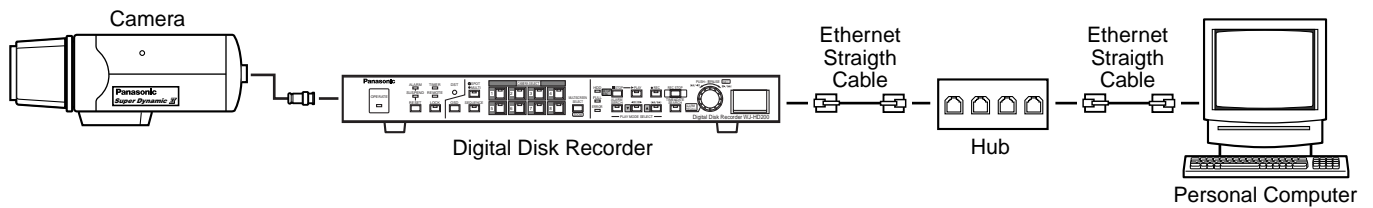
■ Connection

System connection examples are shown.

<Direct Connection with a PC>

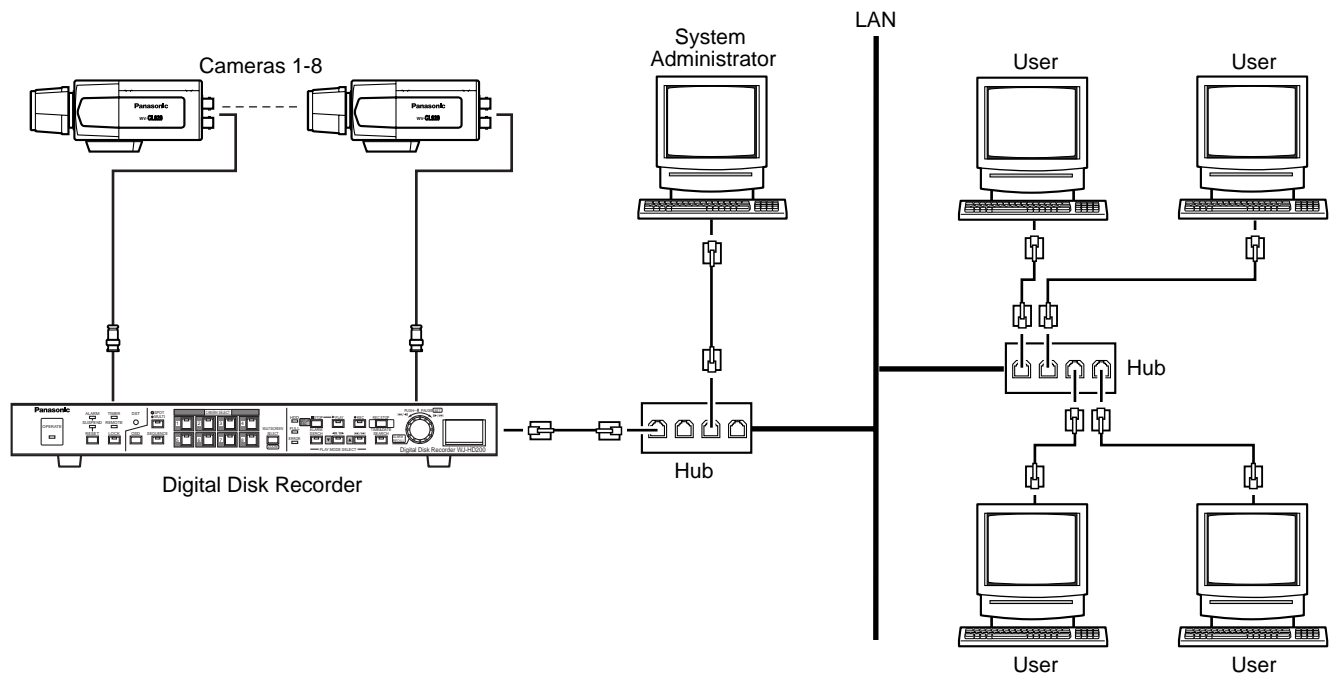


• Connection with a Client PC via Hub



<System Expansion>

A maximum of four PC's will be accessible to the recorder at a time.



■ Main Page and Control Panel

Start your PC WWW browser. Type `http://192.168.0.10/` (or the IP Address set for WJ-HD200) / in the URL (Uniform Resource Locators) space.

The browser displays the **MAIN CONTROL PANEL** of the WJ-HD200 homepage as shown in the figure.

Notes:

- Specify “`http://192.168.0.10/`” when a client PC is connected alone.
- Specify “`http://:` (IP address previously set for the WJ-HD200)” such as a LAN connection.
- A maximum of four PC's are accessible to the recorder at a time.



About Picture Quality

Picture quality transferred via the network depends on the recorder's status as follows.

Recorder Status	Displayed Quality
Timer recording	Preset recording quality
Pre-alarm period	Preset alarm recording quality
Except pre-alarm period	Preset manual recording quality
Playback	Recorded quality on the disk

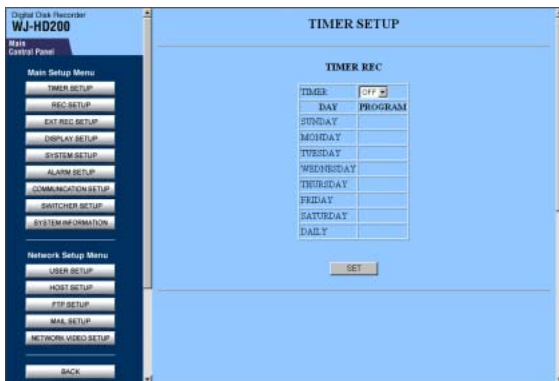
WJ-HD200 SETUP

■ To Access Setup Menus

There are fourteen setup menus to adapt the WJ-HD200 to your requirements.



1. On the **Main Control Panel**, click the [SETUP MENU] button. The setup menu opens.



2. Click the buttons to open the respective windows.

<Main Setup Menu>

TIMER SETUP: Specifies the schedule and parameters for timer recordings.

REC SETUP: Specifies the parameters for manual and alarm recordings.

EXT REC SETUP: Selects optional parameters to be applied to the recording while the externally connected switch to EXT REC terminal turns on.

DISPLAY SETUP: Specifies time-and-date and other displays of status information.

SYSTEM SETUP: Specifies password-protection, and simultaneous REC&PLAY.

ALARM SETUP: Specifies alarm-related monitoring mode, and VMD (video motion detector) mode.

COMMUNICATION SETUP: Specifies parameters for serial and network communications.

SWITCHER SETUP: Specifies sequence and multi-split patterns.

SYSTEM INFORMATION: Displays various system information.

<Network Setup Menu>

USER SETUP: Specifies users, passwords, and access levels.

HOST SETUP: Specifies hosts and access levels.

FTP SETUP: Specifies parameters on transmitting files.

MAIL SETUP: Specifies senders, and receivers.

NETWORK VIDEO SETUP: Specifies application software for video translation, and sequence steps.

3. To return to the **MAIN CONTROL PANEL**, click the [Main Control Panel] tab or [BACK] button on the window.

■ Timer Setup TIMER SETUP

● TIMER REC

TIMER SETUP	
TIMER REC	
TIMER	PROGRAM
DAY	PROGRAM
SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	
DAILY	

SET

OFF: Runs recording when manually operated, not using any timer. Recording parameters are specified in the REC SETUP window.

INT: Runs recording with the programmed picture quality at the time zone scheduled on the internal timer.

EXT: Runs recording when the externally connected timer switch turns on and supplies the power to the recorder (Power-on recording). Recording parameters are specified in the REC SETUP window.

● Program Assignment TIMER REC

When internal timer (INT) is selected, programs can be assigned on weekly and/or daily basis.

Assignable Programs: PROG1 – PROG 4, OFF

● Programming PROGRAM SETUP

There are four programs each contains four events having start and end time, and recording mode.

1. Select ON or OFF for each event.

ON: Applies the schedule and mode to the program.
OFF: Does not apply.

2. Enter the start and end times.

Assignable START Time: From 00:00 to 23:59

Assignable END Time: From 00:01 to 24:00

3. Click the mode SETUP button. The PROG “1-4” No. “1-4” window opens.

● Recording Mode Setup PROG “1-4” NO. “1-4” SET

Parameters for internal timer recording are assigned to each event (NO. 1-4) of the program (PROGRAM 1-4) in this window. There are five recording modes available: super fine (SF), fine (FQ), normal (NQ), long-time (EX) and optional (SP). If combined with audio recording (-A), the number of recording modes doubles. The selected recording mode determines the remaining recording time that is displayed on the monitor.

In the SP mode, the field rate and picture quality are variable, and can be selected at option in the range of 0.1 to 30 FPS and quality levels from five options respectively. After the recording mode is selected, the available recording time is determined and displayed.

Rec Mode	Quality	Audio Record	Note
SF-xxxH	Super Fine	N/A	
FQ-xxxH	Fine	N/A	
NQ-xxxH	Normal	N/A	
EX-xxxH	Long time	N/A	
SF-AxxxH	Super Fine	Available	
FQ-AxxxH	Fine	Available	
NQ-AxxxH	Normal	Available	
EX-AxxxH	Long time	Available	
SP-AxxxH	Optional setup	Available	Field rate, quality selected optionally
SP-xxxH	Optional setup	N/A	Field rate, quality selected optionally

Notes:

- For the recording modes other than SP, suffixed “xxx” in the table will be replaced by a calculated recording time of 24, 48, 72, 96, 120, 170, 180, 240, 480, 960, 1 200, 1 440, 2 160, 2 880, or 8 640 hours. The selected recording mode with the preset rate and quality will determine the suffix.
- Actual recording rate even preset to 30 or 15 FPS may be lessened to 7.5 FPS at worst, while such busy multi task as playback, remote-access playback, remote-access live image, FTP access, multi split display, video motion detection are carried out

at a time. The status display will indicate as “* → PLAY” while playing back the images recorded with a changed rate from the preset.

- Suffix “xxx” following “SP-“ is specified in REC MODE TABLE in ADDENDUM attached to the manual.

1. Select a recording mode. Audio data will be recorded when a mode with hyphen A is selected.

Available Recording Mode: SF, FQ, NQ, EX, SP, SF-A, FQ-A, NQ-A, EX-A, and SP-A.

2. When SP or SP-A is selected, specify a recording rate (REC RATE).

Available Recording Rate: From 0.1 to 30 FPS

3. When SP or SP-A is selected, specify a recording quality (REC QUALITY).

Available recording quality: SUPER FINE, FINE, NORMAL, EXTENDED

● Alarm Recording Mode Setup ALM REC MODE

Alarm events arising within the time zone specified by the program will start recording with the preset parameters. Refer to “PROG NO. SETUP” described above for operating procedures, and available parameters, since they are very much similar.

● Pre-alarm Recording PRE ALM REC

Available Time (seconds): 0S, 1S, 2S, 3S, 4S, and 5S

● Post-alarm Recording POST ALM REC

Available Time (Second): 5, 10, 20, 30

Available Time (Minute): 1, 1.5, 2, 3, 6

Manual: Recording continues until the [REC STOP] button is pressed, or RESET IN signal is supplied to the rear panel.

Continue: Recording continues while the alarm input is active, or at least for 10 seconds if the input early turns inactive.

● Dynamic Recording DYNAMIC REC

ALM-MULTI: Alarm activated channels are recorder with priority over others.

OFF: All channels are evenly recorded.

■ Trigger Action Setup TRIGGER ACTION SETUP

TRIGGER ACTION SETUP
PROG1 NO.1

CAMERA	MODE
1	REC&ALARM
2	REC&ALARM
3	REC&ALARM
4	REC&ALARM
5	REC&ALARM
6	REC&ALARM
7	REC&ALARM
8	REC&ALARM

SET

BACK

● Mode (MODE)

OFF: Disables alarm recording, logging, or warning.

REC&ALARM: Enables all alarm recording, logging and warning.

REC: Enables alarm recording and logging, but disables warning.

Click the [SET] button if all are adequately set.

■ Camera Recording Setup CAM REC SETUP

REC CAMERA SETUP
PROG1 NO.1

CAMERA	MODE
1	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
2	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
3	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
4	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
5	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
6	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
7	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC
8	<input type="radio"/> ALARM-ONLY <input checked="" type="radio"/> REC

SET

BACK

Click the CAMERA REC SETUP in the system setup window to open the menu.

This menu is provided for the purpose of disk space saving. Each camera channel can be recorded only when an alarm operates while it will not be recorded during non-alarm status.

ALARM-ONLY: Records the camera channel only when the alarm operates.

REC: Records the camera channel regardless of alarm-activated or non-alarm status.

■ Manual Recording Setup REC SETUP

REC SETUP	
RECORD MODE	SF 12H
SP FRAMERATE	
SP QUALITY	
ALARM REC MODE	SF 12H
SP FRAMERATE	
SP QUALITY	
PRE ALARM RECORD	0 SEC
POST ALARM RECORD	5 SEC
DYNAMIC RECORD	OFF ALARM-MULTI
SET	
TRIGGER ACTION SETUP	
REC CAMERA SETUP	

Manual recording will take effect when OFF, neither INT nor EXT, is selected in the Timer Mode Selection TIME REC window. The parameters for alarm recording will be applied except the scheduled time zone if INT is selected. Click the REC SETUP button in the setup control panel to open the window.

Refer to ● Recording Mode Setup PROG “1-4” NO. “1-4” SETUP, for operating procedures and available parameters.

■ Externally Specified Recording Mode EXT REC SETUP

EXT REC SETUP	
EXTERNAL RECORD MODE	SF 12H
SP FRAMERATE	
SP QUALITY	
SET	

This window specifies the recording mode and parameters that will be changed when externally connected switch to EXT REC terminal is turned on.

Refer to ● Recording Mode Setup PROG “1-4” NO. “1-4” SETUP, for operating procedures and available parameters.

■ Display Setup DISPLAY SETUP

DISPLAY SETUP	
CLOCK SETUP Jan 15 / 2003 8 52	
SET	
TIME&DATE	TYPE1 24H
TIME&DATE DISPLAY	OFF ON
TIME&DATE POSITION	Right-Lower
STATUS DISPLAY	OFF ON
STATUS POSITION	Right-Lower
HDD FULL	1 (1 to 99%)
REMOTE LED	OFF ON
HDD CHECK	OFF
SET	
CAMERA TITLE SETUP	

Time and date display and other displays of status information are specified in this window.

● Clock Setup (CLOCK SETUP)

Select a month, and type a day, year, hour, and minute.

● Time and Date type (TIME&DATE)

TYPE1 24H: Time and date are displayed in one line in the 24-hour system.

TYPE1 12H: Time and date are displayed in one line in AM-PM system.

TYPE2 24H: Time and date are displayed in two lines in the 24-hour system.

TYPE2 12H: Time and date are displayed in two lines in the AM-PM system.

● Time and Date Display (TIME&DATE DISPLAY)

ON: Time & date display is enabled.

OFF: Time & date display is disabled.

● Time and Date Position (TIME&DATE POSITION)

Right-Lower: Displays time & date in the right lower corner.

Right-Upper: Displays time & date in the right upper corner.

Left-Lower: Displays time & date in the left lower corner.

Left-Upper: Displays time & date in the left upper corner.

● Status Display (STATUS DISPLAY)

ON: Status display is enabled.
OFF: Status display is disabled.

● Status Display Position (STATUS POSITION)

Right-Lower: Displays status in the right lower corner.
Right-Upper: Displays status in the right upper corner.
Left-Lower: Displays status in the left lower corner.
Left-Upper: Displays status in the left upper corner.

● HDD Full (HDD FULL)

1 % - 99 %: The FULL indicator blinks when the remaining capacity reaches the selected value. This will take effect when DISK END MODE is set to STOP in the RECORD SETUP.

● Remote LED (REMOTE LED)

ON: REMOTE LED turns on when the network controls the recorder.
OFF: REMOTE LED is deactivated.

● HDD Check (HDD CHECK)

ON 0:00 - 23:00: The recorder checks the HDD at the specified time every day.
OFF: Check is deactivated.

Click the [SET] button if all are adequately set.

Click the [CAMERA TITLE SETUP] button to open CAMERA TITLE window.

■ Camera Title CAMERA TITLE

CAMERA TITLE

CAMERA	TITLE (length=0 to 5)	POSITION
1	<input type="radio"/> OFF <input checked="" type="radio"/> ON 1	Right-Lower
2	<input type="radio"/> OFF <input checked="" type="radio"/> ON 2	Right-Lower
3	<input type="radio"/> OFF <input checked="" type="radio"/> ON 3	Right-Upper
4	<input type="radio"/> OFF <input checked="" type="radio"/> ON 4	Right-Upper
5	<input type="radio"/> OFF <input checked="" type="radio"/> ON 5	Right-Lower
6	<input type="radio"/> OFF <input checked="" type="radio"/> ON 6	Right-Lower
7	<input type="radio"/> OFF <input checked="" type="radio"/> ON 7	Right-Upper
8	<input type="radio"/> OFF <input checked="" type="radio"/> ON 8	Right-Upper

Usable characters: 0to9 AtoZ space ! % & () * - . / : ?
1(=) r(=) u(=1) d(=1)

● On/Off (ON/OFF)

ON: Displays the camera title.
OFF: Hides the camera title.

● Title (TITLE)

Usable characters: Are shown in the window.
Digit length: 5 digits maximum.

● Title Position (POSITION)

Right-Lower: Displays the title in the right lower corner.
Right-Upper: Displays the title in the right upper corner.
Left-Lower: Displays the title in the left lower corner.
Left-Upper: Displays the title in the left upper corner.

Click the [SET] button if all are adequately set.

■ System Setup SYSTEM SETUP

SYSTEM SETUP

PASSWORD LOCK	<input checked="" type="radio"/> OFF <input type="radio"/> ON
PASSWORD ALL	***** (retry) ***** (Digits 1 to 8 are usable. Length is 5)
PASSWORD OPERATION	***** (retry) ***** (Digits 1 to 8 are usable. Length is 5)
KEYLOCK BUZZER	<input type="radio"/> OFF <input checked="" type="radio"/> ON
SKIP ALARM RECALL	5 (pages)
SIMULTANEOUS REC&PLAY	<input type="radio"/> OFF <input checked="" type="radio"/> ON
ALTER DETECT	<input type="radio"/> OFF <input checked="" type="radio"/> ON
DISK END MODE	<input type="radio"/> STOP <input checked="" type="radio"/> CONTINUE
DISK END BUZZER	<input type="radio"/> OFF <input checked="" type="radio"/> ON
PLAY PRIORITY	LOCAL
TIME ADJUSTING	<input checked="" type="radio"/> SLAVE <input type="radio"/> MASTER => SET TIME 0:00

● Password Lock (PASSWORD LOCK)

Buttons on the front panel of the WJ-HD200 will be password-protected or freed.

ON: Enables password-protection.
OFF: Disables password-protection.

● Password All (PASSWORD ALL)

Enter a five-digit password comprising 1 through 8 to protect normal operations and setup operations from unauthorized access.

Available numerals: From 11111 to 88888

● Password Operation (PASSWORD OPERATION)

Enter a five-digit password to protect normal operations from unauthorized access.

Available numerals: From 11111 to 88888

● Keylock Buzzer (KEYLOCK BUZZER)

The buzzer will beep or not when a locked button is pressed.

ON: Enables the buzzer to beep.

OFF: Disables the buzzer to beep.

● Skip Alarm Recall (SKIP ALARM RECALL)

Specify a skipping page number of the alarm log. The alarm log page will jump the specified pages when the JogDial is rotated.

Available skip page: From 1 to 5

● Simultaneous Recording and Playback (SIMULTANEOUS REC&PLAY)

There may be cases where recording is essential although during playback.

ON: Allows both recording and playback at a time.

OFF: Allows exclusively recording or playback.

Note: The recording rate may be sacrificed in the following cases.

- Recording and playback/FTP access are simultaneously carried out.
- A multi-split screen is displayed.
- VMD (video motion detection) is enabled.
- A PC accesses the live images via the network.

● Alteration Detection ALTER DETECT

You can enable or disable the recorder to add alteration-detection signals in the JPEG data supplied to the network. The default is OFF.

ON: Detects alterations.

OFF: Does not detect.

Note: When set to ON, the data transmission rate on the network will slow down.

● Disk End Mode DISK END MODE

STOP: Stops recording until a mode other than [STOP] is selected.

CONTINUE: Old data is automatically overwritten from the disk start.

● Disk End Buzzer DISK END BUZZER

ON: Enables the buzzer beep at the disk end (remaining space = 0 %).

OFF: Disables the buzzer beep.

● Play Priority PLAY PRIORITY

This setting places priority on a specific access point for playing back the image data when access collisions take place.

LOCAL: Places priority on the front panel operations.

NET PLAY: Places priority on the network access.

FTP GET: Places priority on the access to the FTP.

NONE: The latest operation has priority than others.

● Time Adjusting (TIME ADJUSTING)

The internal timer built in the WJ-HD200 is calibrated once a day via the Time Adjust In and Out terminals on the rear panel.

SLAVE: Accepts the calibration signal from the master.

MASTER: Supplies the calibration signal to the slave units at the specific hour a day.

■ Alarm Setup ALARM SETUP

ALARM SETUP

ALARM BUZZER

☐ OFF ☒ ON

VIDEO LOSS DETECT

☐ OFF ☒ ON

MONITOR MODE

☐ OFF ☒ SPOT

SET

VMD SETUP

● Alarm Buzzer (ALARM BUZZER)

- ON:** Buzzer beeps while alarm is active.
OFF: Buzzer does not beep.

● Video Loss Detection (VIDEO LOSS DETECT)

- OFF:** Deactivates the video loss detection.
ON: Activates the detection.

● Monitoring Mode (MONITOR MODE)

- SPOT:** Switches to the picture of the channel that the alarm operates.
OFF: Retains the previous display mode.

Click the [SET] button if all are adequately set.

■ Video Motion Detector Setup VMD SETUP

VMD SETUP

CAMERA	SENSITIVE	AREA
1	OFF	SETUP
2	OFF	SETUP
3	OFF	SETUP
4	OFF	SETUP
5	OFF	SETUP
6	OFF	SETUP
7	OFF	SETUP
8	OFF	SETUP

SET

BACK

● Sensitivity (SENSITIVE)

- LOW:** Low sensitivity.
MID: Medium sensitivity.
HIGH: High sensitivity.
OFF: Motion detection is disabled.


Click the [SET] button if all are adequately set.

Click the [SETUP] button to open the area setup window.

● VMD Area Setup (VMD AREA SETUP)

VMD AREA SETUP

CH1



DELETE

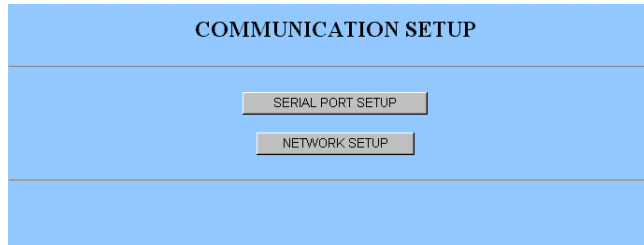
SET

BACK

Drag a maximum of four areas with the mouse to specify the detection areas.

Click the [SET] button if all are adequately set.

■ Communication Setup COMMUNICATION SETUP



Click the [SERIAL SETUP], or [NETWORK SETUP] button.
The respective window opens.

■ Serial Port Setup SERIAL PORT SETUP

PROTOCOL SELECT	PS Data	VCR
BAUD RATE	9600bps	
DATA BIT	8bit(fixed)	7bit 8bit
PARITY CHECK	NONE	
STOP BIT	1bit 2bit	1bit 2bit
WAIT TIME	OFF	
SYSTEM UNIT ADDRESS	1 (1 to 99)	
CONTROL UNIT ADDRESS	2 (1 to 99)	
ALARM DATA	1 SEC	

SET

CAMERA NO. SETUP

● Protocol Selection (PROTOCOL SELECT)

PS·DATA: Select when the communication chain uses the PS·DATA protocol.

When selected, the DATA terminal on the rear panel can be used.

VCR: Select when other than PS·DATA is used.

When selected, the RS-232C terminal on the rear panel can be used.

● Baud Rate (BAUD RATE)

4800: 4 800 bps

9600: 9 600 bps

19200: 19 200 bps

● Data Bit (DATA BIT)

7: 7 bits

8: 8 bits; select 8 when using the VCR protocol.

● Parity Check (PARITY CHECK)

NONE: No parity check

EVEN: Even parity

ODD: Odd parity

● Stop Bit (STOP BIT)

1 bit: 1 bit

2 bit: 2 bits

● Wait Time (WAIT TIME)

OFF: Retransmission is disabled.

100 MSEC: 100 m seconds

200 MSEC: 200 m seconds

1 SEC: 1 second

● System Unit Address (SYSTEM UNIT ADDRESS) (only for PS·DATA)

Assignable address: From 1 to 99, must be unique in the chain.

● Control Unit Address (CONTROL UNIT ADDRESS) (only for PS·DATA)

Assignable address: From 1 to 99, must be unique in the chain.

● Alarm Data (ALARM DATA)

OFF: Select this when no system controller is connected.

0 SEC: Pauses no time.

1 SEC: Pauses for 1 second.

5 SEC: Pauses for 5 seconds.

Click the [SET] button if all are adequately set.

Click the [CAMERA NO. SETUP] button. The CAMERA NO. SETUP window opens.

■ Camera Number Setup CAM NO. SETUP (only for PS-DATA)

CAM-PORT	CAMERA No.
1	1 (1 to 128)
2	2 (1 to 128)
3	3 (1 to 128)
4	4 (1 to 128)
5	5 (1 to 128)
6	6 (1 to 128)
7	7 (1 to 128)
8	8 (1 to 128)

SET

BACK

Assignable number: From 1 to 128, must be unique in the chain.

Click the [SET] button if all are adequately set.

■ Network Setup NETWORK SETUP

NETWORK SETUP	
LINE SPEED	AUTO
HTTP SERVER PORT	80
HOST NAME	WJ-HD200 (Capital Letters & Digits are usable. Max length is 10)
DHCP ON/OFF	OFF (StaticAddress) ON (DynamicAddress)
IP ADDRESS	192.168.0.10
NETMASK	255.255.255.0
DEFAULT GATEWAY	192.168.0.1

● Line Speed (LINE SPEED)

AUTO: The speed is automatically selected.

100Mbps (FULL DUPLEX): 100 mega byte, full duplex

100Mbps (HALF DUPLEX): 100 mega byte, half duplex

10Mbps (FULL DUPLEX): 10 mega byte, full duplex

10Mbps (HALF DUPLEX): 10 mega byte, half duplex

● HTTP Server Port (HTTP SERVER PORT)

Enter from the keyboard. The default setting is 80.

● Host Name (HOST NAME)

The host name is displayed. Enter from the keyboard.

● DHCP On/Off (DHCP ON/OFF)

Select ON or OFF for DHCP (Dynamic Host

Configuration Protocol).

IP Address (IP ADDRESS)

The IP address is displayed. Enter from the keyboard.

Netmask (NETMASK)

The netmask is displayed. Enter from the keyboard.

Default Gateway (DEFAULT GATEWAY)

The default gateway is displayed. Type in from the keyboard.

● Domain Name Service (DOMAIN NAME)

Domain Name Service	<input checked="" type="radio"/> OFF (Only IP Address) <input type="radio"/> MANUAL (Also DomainName) <input type="radio"/> AUTO (Also DomainName)
Domain Name	
DNS Server Address	
Dynamic DNS	OFF ON
DDNS User Name	
DDNS Password	
DDNS Access Interval	
SET & REBOOT	
SNMP Community	public
SNMP Contact	
SNMP System Name	
SNMP System Location	
SET	
BACK	

OFF: Disables DNS, only IP address usable.

MANUAL: Enables DNS.

AUTO: Enables DNS.

Domain Name

Enter from the keyboard.

DNS Server Address

Enter from the keyboard.

● Dynamic DNS

OFF: Does not use DDNS.

ON: Uses DDNS.

DNS User Name

Enter from the keyboard.

DNS Password

Enter from the keyboard.

DNS Access Interval

Enter from the keyboard.

● Simple Network Management Protocol

SNMP Community

Enter from the keyboard.

SNMP Contact

Enter from the keyboard.

SNMP System Name

Enter from the keyboard.

SNMP System Location

Enter from the keyboard.

Click the [SET] button if all are adequately set.

The WJ-HD200 will restart, and you will be requested to enter the URL as described earlier in Main Page and Control Panel.

Switcher Setup SWITCHER SETUP

This window specifies sequence setups only for WJ-HD200. Browser's sequence is set up in the LIVE SEQUENCE SETUP in page 71.

SWITCHER SETUP

COMMON SETUP

START DISPLAY: CH 1

MULTI SELECT MODE: ☒ QUAD ONLY ☐ ALL

MULTI SEQUENCE SETUP [SETUP]

SEQUENCE TIMING: ☒ INT ☐ EXT

AUTO SKIP: ☐ OFF ☒ ON

SPOT SEQUENCE SETUP [SETUP]

SEQUENCE TIMING: ☒ INT ☐ EXT

AUTO SKIP: ☐ OFF ☒ ON

CAMERA VIEW SETUP [SETUP]

[SET]

• Common Setup (COMMON SETUP)

Start Display (START DISPLAY)

The image in the selected form will be displayed on the monitor when the unit is turned on.

Single Image: CH 1 – CH 8

Quad Image: QUAD-A (including 1-4), QUAD-B (including 5-8)

Multi Image: 9-SCREEN (including 1-8)

Sequence: SPOT SEQUENCE, MULTI SEQUENCE

Multi-screen Selection Mode (MULTI SELECT MODE)

When the [MULTI SCREEN SELECT] button on the front panel is pressed, the monitor display will change as follows depending on the selection.

QUAD ONLY: QUAD-A → QUAD-B → QUAD-A

ALL: QUAD-A → QUAD-B → 9-SCREEN → QUAD-A

• Multi-screen Sequence Setup (MULTI SEQUENCE SETUP)

Sequence Timing (SEQUENCE TIMING)

INT: The preset time to the internal timer allows the sequence to step forward.

EXT: SEQ IN signal to the rear panel allows the sequence to step forward.

Auto Skip (AUTO SKIP)

ON: The sequence skips the step where no video is input.

OFF: The sequence does not skip the step.

Click the button to open the Multi Sequence Setup window.

• Spot-screen Sequence Setup (SPOT SEQUENCE SETUP)

Sequence Timing (SEQUENCE TIMING)

INT: The preset time to the internal timer allows the sequence to step forward.

EXT: SEQ IN signal to the rear panel allows the sequence to step forward.

Auto Skip (AUTO SKIP)

ON: The sequence skips the step where no video is input.

OFF: The sequence does not skip the step.

Click the button to open the Spot Sequence Setup window.

• Camera View Setup (CAMERA VIEW SETUP)

Click the button to open the Camera View Setup window.

Multi Sequence Setup MULTI SEQUENCE SETUP

MULTI SEQUENCE SETUP

STEP	CAMERA CH	TIME (2 to 30) sec
1	QUAD A	2
2	QUAD B	2
3	OFF	2
4	OFF	2
5	OFF	2
6	OFF	2
7	OFF	2
8	OFF	2

[SET]

[BACK]

• Camera Channel (CAMERA CH)

1 - 8: The selected camera image will be displayed in single spot mode.

QUAD A: Camera image 1 through 4 will be displayed in quad-split mode.

QUAD B: Camera image 5 through 8 will be displayed in quad-split mode.

• Time (TIME)

Available duration: 2-30 S

Click the [SET] button if all are adequately set.

■ Spot Sequence Setup SPOT SEQUENCE SETUP

STEP	CAMERA CH	TIME (2 to 30)
1	CH 1	2 SEC
2	CH 2	2 SEC
3	CH 3	2 SEC
4	CH 4	2 SEC
5	CH 5	2 SEC
6	CH 6	2 SEC
7	CH 7	2 SEC
8	CH 8	2 SEC

SET

BACK

- **Camera Channel (CAMERA CH)**

1 - 8: The selected camera image will be displayed.
OFF: Blackout screen will be displayed.

- **Time (TIME)**

Available duration: 2-30 S

■ Camera View Setup CAMERA VIEW SETUP

CAMERA	MODE
1	OFF ON
2	OFF ON
3	OFF ON
4	OFF ON
5	OFF ON
6	OFF ON
7	OFF ON
8	OFF ON

SET

BACK

- **Mode (MODE)**

ON: Live image of the channel is displayed.
OFF: Blackout image is displayed.

Click the [SET] button if all are adequately set.

■ System Information SYSTEM INFORMATION

HDD HOUR METER	DISK1	30000 Hours
	DISK2	30000 Hours
HDD CAPACITY		240.00 GB
SYSTEM VERSION		3.14
MAC ADDRESS		01:23:45:AB:CDEF
IP ADDRESS		192.168.0.10
SUBNET MASK		255.255.255.0
GATEWAY		192.168.0.1

SYSTEM LOG

- **HDD Hour Meter (HDD HOUR METER)**

Each meter shows how many hours the digital hard disk recorder has been operated in playback, recording and idle. The built-in HDD needs replacement when the hour meter reads around 30 000 H.

- **HDD Capacity (HDD CAPACITY)**

The total usable capacity of the built-in hard disk is indicated.

- **System Software Version (SYSTEM VERSION)**

This line displays the version number of the installed system software.

- **MAC Address (MAC ADDRESS)**

A MAC (Media Access Control) address is displayed.

- **IP Address (IP ADDRESS)**

The IP address is displayed.

- **Subnet Mask (SUBNET MASK)**

The subnet mask is displayed.

- **Gateway (GATEWAY)**

The gateway is displayed.

■ System Log SYSTEM LOG

SYSTEM LOG		
TEMP=Temperature, HDD*CHK=hard disk check error, FULL=Hard disk is full		
No.	Date	CAUSE
99	Dec/31/2003 19:00:00	TEMP
98	Dec/31/2003 18:00:00	TEMP
97	Dec/31/2003 17:00:00	TEMP
96	Dec/31/2003 16:00:00	TEMP
95	Dec/31/2003 15:00:00	HDD1CHK
94	Dec/31/2003 14:00:00	HDD1CHK
93	Dec/31/2003 13:00:00	HDD1CHK
92	Dec/31/2003 12:00:00	HDD1CHK
91	Dec/31/2003 11:00:00	HDD1CHK
80	Dec/31/2003 10:00:00	TEMP
79	Dec/31/2003 09:00:00	TEMP
78	Dec/31/2003 08:00:00	TEMP
77	Dec/31/2003 07:00:00	TEMP
76	Dec/31/2003 06:00:00	TEMP
75	Dec/31/2003 05:00:00	HDD FULL
74	Dec/31/2003 04:00:00	HDD FULL
12	Jan/ 1/2003 12:00:00	HDD1CHK
11	Jan/ 1/2003 11:00:00	HDD1CHK
10	Jan/ 1/2003 10:00:00	TEMP
9	Jan/ 1/2003 09:00:00	TEMP
8	Jan/ 1/2003 08:00:00	TEMP
7	Jan/ 1/2003 07:00:00	TEMP
6	Jan/ 1/2003 06:00:00	TEMP
5	Jan/ 1/2003 05:00:00	HDD1CHK
4	Jan/ 1/2003 04:00:00	HDD1CHK
3	Jan/ 1/2003 03:00:00	HDD1CHK
2	Jan/ 1/2003 02:00:00	HDD1CHK
1	Jan/ 1/2003 01:00:00	HDD1CHK
BACK		

Click the [SYSTEM LOG] button in the SYSTEM INFORMATION window to open the log.

In the log, the error cause is abbreviated as follows.

TEMP: Temperature inside the unit exceeds over the operating range.

HDD1CHK: Error on HDD 1

HDD2CHK: Error on HDD 2

HDD FULL: All capacity has been used up.

NETWORK CONFIGURATION

■ User Setup USER SETUP

A maximum of 16 users can be registered.

USER SETUP

USER AUTHORIZATION

USER AUTHORIZATION ☐ OFF ☐ ON

SET

SET USER (PASSWORD, ACCESS LEVEL)

USER NAME

PASSWORD (retype)

ACCESS LEVEL ☐ [1] ADMINISTRATOR
☐ [2] LIVE MONITORING & PLAYBACK
☐ [3] LIVE MONITORING ONLY

SET

DELETE USER

USER NAME TO DELETE

DELETE

● User Authorization (USER AUTHORIZATION)

OFF: Allows free access.

ON: Verifies the password and access level for a maximum of sixteen users.

Click the [SET] button.

● User Name (USER NAME)

Enter from the keyboard. The default is "admin".

● Password (PASSWORD)

Enter from the keyboard. The default is "admin".

● Access Level (ACCESS LEVEL)

The default is [1].

[1] ADMINISTRATOR: Allows to access the setup parameters, live and playback images.

[2] LIVE MONITORING & PLAYBACK: Bans to access the setup parameters.

[3] LIVE MONITORING ONLY: Allows only monitoring live images.

Click the [SET] button if all are adequately set.

● Deleting Users (DELETE USER)

Enter or select the user name you wish to erase, and click the [DELETE] button.

■ Host Setup HOST SETUP

A maximum of 8 hosts can be registered.

HOST SETUP

HOST AUTHORIZATION

HOST AUTHORIZATION ☐ OFF ☐ ON

SET

SET HOST ALLOWED TO ACCESS

HOST ADDRESS

SET

DELETE HOST

HOST ADDRESS TO DELETE

DELETE

● Host Authorization (HOST AUTHORIZATION)

OFF: Allows free access.

ON: Verifies the host address and access level for a maximum eight hosts.

Click the [SET] button.

● Set Host Allowed to Access (SET HOST ALLOWED TO ACCESS)

Host Address: enter from the keyboard.

Click the [SET] button.

● Deleting Hosts (DELETE HOST)

Enter or select the host address you wish to erase, and click the [DELETE] button.

FTP Client Setup FTP CLIENT SETUP

FTP CLIENT SETUP

COMMON SETUP

SERVER ADDRESS	ftpserv.somedomain.co.jp		
LOGIN USER NAME	ftpuser		
LOGIN PASSWORD	*****	(retype)	*****
MODE	<input checked="" type="radio"/> SEQUENTIAL <input type="radio"/> PASSIVE		

SET

• Common Setup (COMMON SETUP)

Server Address (SERVER ADDRESS)

Enter the server address.

Login User Name (LOGIN USER NAME)

Enter the user name.

Login Password (LOGIN PASSWORD)

Enter the password.

Mode (MODE)

Available Type: SEQUENTIAL, PASSIVE

Click the [SET] button.

• FTP Send by Periodic Timer (FTP SEND BY PERIODIC TIMER)

FTP SEND BY PERIODIC TIMER

FTP SENDING	<input type="radio"/> OFF <input checked="" type="radio"/> ON							
SERVER DIRECTORY	/ftpdirt/periodic							
FILE NAME	<input checked="" type="radio"/> DATE AND TIME BASE <input type="radio"/> Serial No.: from 1 to 65535 (MAX=99999999)							
INTERVAL	10 MINUTES 1-1440(SEC),1-1440(MIN)							
CHANNEL TO SEND	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF
	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON	<input type="radio"/> ON

FTP Sending (FTP SENDING)

ON: Sends the channel images at the specified interval.

OFF: Does not send.

Server Directory (SERVER DIRECTORY)

Enter the directory where you store the image data.

File Name (FILE NAME)

File Name Rule: Date & time basis, Serial numbering

Interval (INTERVAL)

Available Time: 1 - 1 440 seconds, 1 - 1 440 minutes

Channel to Send (CHANNEL TO SEND)

OFF: Does not send the channel image.

ON: Sends the channel image.

Click the [SET] button if all are appropriately set.

■ Mail Setup MAIL SETUP

● Alarm Mail Setup (ALARM MAIL SETUP)

Sending Mail (SEND MAIL)

OFF: Does not send.

ON: Sends an e-mail to a maximum of four receivers when an alarm operates.

Attaching Alarm Image (ATTACH ALARM IMAGE)

OFF: Does not attach.

ON: Attaches the image of the alarm-activated channel to the mail.

Mail Server Address (MAIL SERVER ADDRESS)

Enter from the keyboard.

Sender Address (FROM ADDRESS)

Enter from the keyboard, and click the SET button.

● Set Mail Address (SET MAIL ADDRESS)

Enter from the keyboard, and click the [SET] button. A maximum of four addresses can be set.

● Delete Mail Address (DELETE MAIL ADDRESS)

Enter or select the address you wish to erase, and click the [DELETE] button.

Note: Use the VIEW.HTML to open the attached image displaying the normal aspect. Otherwise, the vertical size will shrink to a half.

■ Network Video Setup NETWORK VIDEO SETUP

● Live & Playback Image Setup (LIVE & PLAY IMAGE SETUP)

Video Rate (PULL VIDEO RATE)

Applicable Rate: FAST, MIDDLE, SLOW, VERY SLOW

Click the [SET] button.

● Live Sequence Setup (LIVE SEQUENCE SETUP)

Use Sequence (USE SEQUENCE)

OFF: Does not run the sequence.

ON: Runs the sequence.

Auto Skip (AUTO SKIP)

OFF: Displays the step as a blackout screen where no video is input.

ON: Skips the step where no video is input.

Camera Channel (CAM CH)

Available Channel: CH1 - CH8, OFF

Duration (TIME)

Available Duration: FAST, MIDDLE, SLOW, VERY SLOW

Click the [SET] button.

■ MAIN PANEL



① **Main Control Panel Tab**

Opens the main control panel.

② **Alarm List Tab**

Opens the alarm list.

③ **Status Display**

LIVE, REC, PLAY, REC+PLAY and ALARM are displayed.

④ **Channel Number Display (CH)**

The channel number of the image is displayed.

⑤ **Time Display**

Time and date are displayed.

⑥ **Image Display Area**

The selected image is displayed.

Notes:

- Buttons and areas from ⑦ to ⑪ will appear only after the [PLAY] button is clicked.
- Time length between the start time and end time is allowed if it is within 30 minutes as a maximum.
- Refer to Appendix for opening the downloaded files.

⑦ **Start Button (START)**

While playing back, clicking this button will specify the start point for downloading.

⑧ **Start Time Display Area**

Displays the start time of the recorded image that you are to download.

⑨ **End Button (END)**

While playing back, clicking this button will specify the end point for downloading.

⑩ **End Time Display Area**

Displays the end time of the recorded image that you are to download.

⑪ **Download Button (DOWNLOAD)**

Pulls out the image data specified time range from the start to end time.

⑫ **To the Oldest Frame button (TO OLDEST)**

Jumps the recorded image to the oldest frame of the record.

⑬ **Rewind button (SEARCH REVIEW)**

Rewinds the recorded image on the WJ-HD200 to the start position.

⑭ **Play button (PLAY)**

Plays back the recorded image.

⑮ **Fast Forward button (SEARCH FWD)**

Fast-forwards the recorded image on the WJ-HD200 to the end position.

⑯ **To the Latest Frame button (TO LATEST)**

Jumps the recorded image to the latest frame of the record.

⑰ **Previous Frame button (PREV FRAME)**

Returns the frame one step to the previous.

⑮ **Pause button (PAUSE)**

Pauses the playback image.

⑰ **Stop button (STOP)**

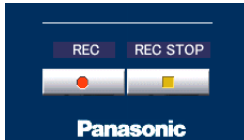
Stops playbacks including REW, PREV FRAME, PAUSE, PLAY, NEXT FRAME, and FF.

⑳ **Next Frame button (NEXT FRAME)**

Forwards the frame one step to the next while pausing.

㉑ **Recording button (REC)**

Starts recording.



㉒ **Recording Stop button (REC STOP)**

Stops recording.

● **Camera Selection button (Camera Select)**

Click any of the buttons.

The selected camera channel will be displayed in the image area.

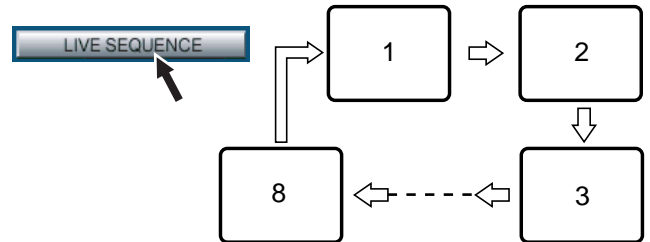
● **Multiscreen Selection Button**

Clicking the button displays the respective multiscreen.



● **Live Sequence button (LIVE SEQUENCE)**

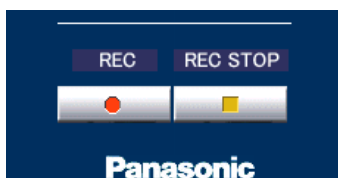
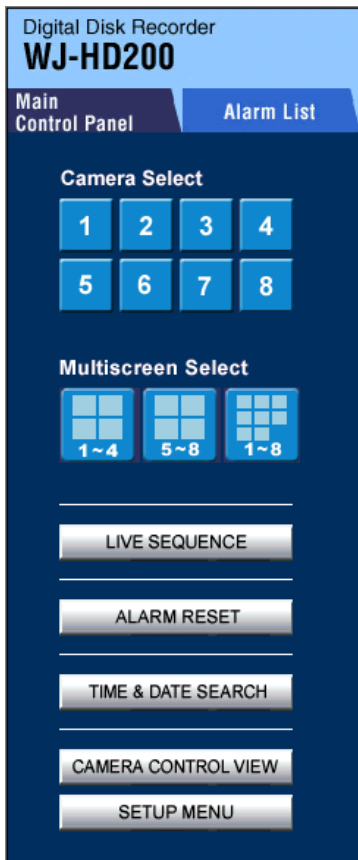
Clicking the [LIVE SEQUENCE] button runs a series of live images that is beforehand preset with the sequence order and display time.



● **Alarm Reset button (Alarm Reset)**

The activated alarm event is reset.

■ MAIN CONTROL PANEL



● Time & Date Search button (Time&Date Search)

Clicking the button will display the time and date search dialog.

1. Specify the date, and time.

2. Click the [OK] button.

The image will be searched, and displayed in the image area.

TIME&DATE SEARCH

DATE (M/D/Y)

Jan

1

/

2003

TIME (H:M:S)

0

:

00

:

00

OK

CANCEL

Note: Searching may take 18 seconds at worst particularly when the recorder runs simultaneous recording and playback, and/or when the targeted image has a small size.

● Camera Control View button (Camera Control View)



Clicking the [Camera Control View] button opens the window.

Camera Select button displays the live image of the selected camera number.

Main Control Panel tab returns the window back to the main control panel.

ZOOM (WIDE/TELE) buttons zoom in or out the image.

FOCUS (FAR/NEAR/AUTO) buttons adjust the focus of the image. When AUTO is clicked, the camera will adjust the focus by itself.

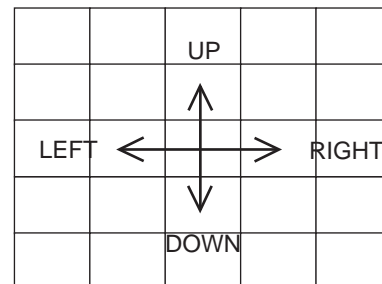
IRIS (CLOSE/OPEN/RESET) buttons adjust the iris of the image. When RESET is clicked, the iris will return to the factory default setting.

AUTO PAN (ON/OFF) buttons allow the camera to turn the preset range endlessly.

PRESET allows the camera to turn to the preset position specified by the number.

PAN/TILT Control:

Clicking the desired direction in the image display area will move the camera if it is mounted on a pan/tilt table. The image display area is assigned panning/tilting function together with the mouse click. Each of 25-split (5x5) areas is invisible, but represents moving directions: up, down, right or left.



■ ALARM LIST

Digital Disk Recorder
WJ-HD200

Main Control Panel Alarm List

No.	DATE	CH	TYPE
20	Dec/31/2003 20:00:00	1	TERM
19	Dec/31/2003 19:00:00	2	VMD
18	Dec/31/2003 18:00:00	3	VMD
17	Dec/31/2003 17:00:00	4	TERM
16	Dec/31/2003 16:00:00	5	TERM
15	Jan/ 1/2003 15:00:00	1	TERM
14	Jan/ 1/2003 14:00:00	2	TERM
13	Jan/ 1/2003 13:00:00	3	TERM
12	Jan/ 1/2003 12:00:00	4	TERM
11	Jan/ 1/2003 11:00:00	5	TERM
10	Jan/ 1/2003 10:00:00	1	TERM
9	Jan/ 1/2003 09:00:00	2	TERM
8	Jan/ 1/2003 08:00:00	3	TERM
7	Jan/ 1/2003 07:00:00	4	TERM
6	Jan/ 1/2003 06:00:00	5	TERM
5	Jan/ 1/2003 05:00:00	1	PC
4	Jan/ 1/2003 04:00:00	2	PC
3	Jan/ 1/2003 03:00:00	3	PC
2	Jan/ 1/2003 02:00:00	4	TERM
1	Jan/ 1/2003 01:00:00	5	TERM

PREV NEXT

ALARM LIST SEARCH

Clicking the alarm list tab in the main control panel opens the list.

Alarm events are listed with event number, date, channel number, and event type.

PREV button returns the list page back to previous one.

NEXT button opens a next page.

Alarm List Search button opens the search dialog.

Event types are abbreviated as follows in the list.

TERM: The alarm terminal on the rear of the WJ-HD200 is activated.

VMD: The built-in Video Motion Detector operates.

PC: The recorder received an alarm from a PC.

ALARM LIST SEARCH

DATE (M/D/Y) Jan / 1 / 2003

TIME (H:M:S) 00 : 00 : 00

OK CANCEL

Specify the month, day, year, and time of the event you wish to search.

Click the [OK] button. The dialog disappears, and the searched event will be highlighted in the alarm list.

Note: Searching may take 18 seconds at worst particularly when the recorder runs simultaneous recording and playback, and/or when the targeted image has a small size.

TROUBLESHOOTING

Phenomenon	Cause	What to do
Power is not turned on.	Insufficient power cord connections	Connect the power cord to AC outlet.
Error message "NO DISK" is displayed on the monitor.	There is no available disk.	Refer to HDD MAINTENANCE in Appendix to confirm the HDD status. Consult your dealer when a malfunction is found.
Error message "VIDEO LOSS" is displayed on the monitor.	Disconnection of camera, camera cable, or VIDEO IN BNC.	Connect the respective camera, cable, and connector properly.
Error message "TEMP ERROR" is displayed on the monitor.	Ventilation blocked, or failure of cooling fan	Remove obstacles, or consult your dealer for servicing.
Administrator password cannot be remembered.		Reset the recorder to the factory default setting. (page 32)
DISK MENU appears when turning on the power.	HDD may have changed in status, or it may have malfunctioned.	Check the HDD status referring to HDD MAINTENANCE. Consult your dealer when a malfunction is confirmed.
Camera picture is not displayed on the monitor.	Lens cap is still left on the camera, some device is not turned on, or brightness and contrast of the monitor are improperly adjusted.	Detach the lens cap, turn on the device, or adjust the monitor.
Nine-split display does not function.	QUAD ONLY may be set for MULTI SELECT MODE.	Set it to ALL.
Setup menus supplied from the Matrix Switcher are not recorded.	The WJ-HD200 does not record non-interlace video.	
When accessing via the network:		
Remote operations are not accepted while BUSY indicator is lit.	Front panel buttons on the recorder are being operated, or more than four PC's access the recorder.	Wait until the preceding accesses end.
Slow image refreshment and/or slow response to operations	Network is busy.	Wait until the preceding accesses end.

SPECIFICATIONS & APPENDIX

SPECIFICATIONS

General

Power Source Required:	120 V AC, 60 Hz
Power Consumption:	35 W
Ambient Operating Temperature:	+5 °C - +45 °C (41 °F – 113 °F)
Ambient Operating Humidity:	Less than 85 %
Dimensions:	420 mm (W) x 44 mm (H) x 350 mm (D) 16-9/16" (W) x 3-7/16" (H) x 13-3/4" (D)
Weight:	5.2 kg (11.4 lbs.)

Input

Video Input:	1.0 V[p-p]/75 Ω Composite video signal with 75 Ω Automatic Termination / Looping through (x8)
Audio Input:	-10 dB 10 k Ω unbalanced, RCA standard jack

Image Process

Compression System:	JPEG
Pixel Rate:	720 x 240
Refresh Rate:	30 FPS maximum

Output

Video Output:	1.0 V[p-p]/75 Ω Composite video signal/Looping through (x8)
Video Output Front Panel:	1.0 V[p-p]/75 Ω Composite video signal (x1)
Audio Output:	-10 dB 600 Ω unbalanced, RCA standard jack (x1)
Audio Output Front Panel:	-10 dB 600 Ω unbalanced, RCA standard jack (x1)
Spot Monitor Output:	1.0 V[p-p]/75 Ω Composite video signal (x1)
Multi-screen Monitor Output:	1.0 V[p-p]/75 Ω Composite video signal (x1)

Control Port

Alarm/Remote Port:	25-pin Full Pitch D-sub connector (x1) Alarm Input 1-8, Alarm Reset Input, EXT REC Input, Time Adjust Input, Sequence Input: Low-active, Non-voltage N.O. Contact, ≥ 100 ms Alarm Output 1, Alarm Recovery Output 1, Disk End Status Output, Time Adjust Output, Warning Output, REC Status Output, Play Status Output, Sequence Output: Low-active, Open-collector, 24 VDC 100 mA max. Alarm Output 2: High-active, 12 V 4.7 k Ω Alarm Recovery Output 2: High-active, 12 VDC 220 Ω
RS-485 (PS•Data):	6-conductor modular jack (RJ-11)
RS-232C:	9-pin Full Pitch D-sub connector
10/100BASE-TX Port:	10Base-T and 100Base-TX, 8-conductor modular jack (RJ-45) Protocol Installed: TCP/IP, HTTP, FTP, SMTP, SNMP Security: Password-protected

Hard Disk Drive

Built-in:	120 GB (x1)
Extension:	Optional 1 unit, available using built-in bracket

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES





































Rack Mounting Bracket	2 pc's.
Screw for Rack Mounting Bracket (M3x10)	6 pc's.
Absorber	4 pc's.
Sleeve	4 pc's.
Hard Disk Fixing Screw	4 pc's.

APPENDIX

■ Remote Control From System Controller

A system controller having PS•Data capability can control the WJ-HD200. The table compares operations of the WJ-HD200 and of the system controller WV-CU360. Make certain that the protocol selection for the WJ-HD200 is set to PS•Data.

Item	WJ-HD200	WV-CU360	Note
To Show/Hide SETUP MENU	Hold down 2 seconds	Hold down 2 seconds	Button lock is released automatically by opening the setup menu.
Setup Item Selection			
Parameter Selection			
To Move Cursor Back A Step			
To Show/Hide Alarm List	Hold down 2 seconds		
To Search Alarm Event			
To Play/Stop Selected Alarm Record			
Recording			
Stop			
To Stop Playback			Exclusive use to stop playback.
To Stop Recording			Exclusive use to stop recording.
Playback			
Pause			
Step Playback FWD.			
Step Playback REW.			
Skip Playback FWD.			→ x1/2 → PLAY → x2PLAY → x3PLAY → x4PLAY → x5PLAY →
Skip Playback REW.			Same as above
Jump to Latest.			The top of the latest record will be accessed.
Jump to Oldest.			The top of the oldest record will be accessed.

Item	WJ-HD200	WV-CU360	Note
DAYLIGHT SAVINGS	DST ○	 → 1 → 3 →  	
Timer REC Mode Selection	Operate LCD Button.	 → 1 →  →  	OFF, INT or EXT selectable
Status Info Display ON/OFF	OSD 	 → 1 → 9 →  	
Button Lock OFF	enter Password.	 → 3 → 0 →  	
Button Lock ON	LOCK 	 → 3 → 1 →  	
Time & Date Search	TIME&DATE SEARCH 	 →  → 0 →  	
Multi-screen Selection	MULTISCREEN SELECT  ZOOM	MULTI SCREEN SELECT 	
Spot Monitor Selection	*SPOT ○ MULTI 	1 →  	
Multi-screen Monitor Selection	*SPOT ○ MULTI 	 →  	
Camera Selection	 ~ 	[Num Button] →  	

■ RS-232C Communication Protocol

The following pages detail the elements for communication between the Digital Disk Recorder and the personal computer. Be sure to select VCR for PROTOCOL in the COMMUNICATION SETUP window. For BAUD RATE, DATA BIT and PARITY settings, refer to COMMUNICATION SETUP. For cable connection refer to RS-232C CONNECTION.

1. Transmission Command

The PC sends messages to the Recorder in the format shown below. Also refer to the command table shown later.

Code	[STX] [Transmission Command] : [p1] : [p2] : : [pn] [ETX]
ASCII	(02H) () ----- () (03H)

[p] stands for parameter. Parameters are omitted when the command does not need to specify them.

2. Response Command

The Recorder returns messages in reply to the PC's messages with the following formats.

(1) Reception Command

When the reception was completed successfully, the Recorder sends back the "ACK code 06H" to the PC, and then the response command below.

Code	[STX] [Response Command] : [p1] : [p2] : : [pn] [ETX]
ASCII	(02H) () ----- () (03H)

Parameters are omitted when the command format includes neither data nor status to send back.

(2) Reception error

The recorder sends back the "NAK code 15H", followed by the parameters shown below. The Recorder then resets the reception buffer and enters waiting mode for the next message. Parameter "e" identifies the error status.

Code	[NAK] [e]
ASCII	(15H)

"e" value 1: Parity error (31H)
 2: Framing error (33H)
 3: Overrun error (34H)

(3) Parameter error

The Recorder returns the "ACK code 06H", if the transmission code was not processed properly for some reason, followed by an error code as shown below.

Code	[STX] ERE [ETX]
ASCII	(02H) (45H) (03H)

Note: The Recorder returns [ACK] or [NAK] to the PC within 20 ms after the reception of [ETX] in a transmission.

● Command Table

Basic Operation

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Fast Forward to the end	OFF	OFF	
Pause	OPA	OPA	
Play	OPL	OPL	
Recording	ORC	ORC	
Rewind to the top	ORW	ORW	
Skip&Play Forward	OSF:n	OSF	n=0F Normal speed n=1F x2 speed n=2F x5 speed n=3F x50 speed n=5F x100 speed n=0S Normal speed n=1S 1/2 speed n=+ Increment n=- Decrement
Stop	OSP:n	OSP	n =P stops PLAY n =R stops REC no parameter stops PLAY and REC
Skip&Play Rewind	OSR:n	OSR	Refer to OSF.
Forward a field	OVF	OVF	
Rewind a field	OVR	OVR	
Camera Selection	OCS:cccc	OCS:cccc	cccc=00001 – 00008 (decimal) cccc=+ 1 up cccc=- 1 down
Monitor Selection	OMS:mmmm	OMS:mmmm	mmmm=0001 Multi-screen Monitor mmmm=0002 Spot Monitor
Button Lock	MKL:n	MKL	n=0 Unlock n=1 Lock
EL-zoom	OZM:m	OZM:m (m=0-4)	m=0 EL-zoom OFF m=1 EL-zoom ON m=2 2-fold m=4 4-fold m=+ x1 → x2 → x4 → x1 m=- x4 → x2 → x1 → x4

Alarm Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Alarm Suspension	MAD:n	MAD:n	n=0 Suspension disabled n=1 Suspension enabled
Alarm History Display	OAE:n	OAE	n=0 Display hides n=1 Display appears n=+ Toggle
Alarm Reset	OAL:n	OAL	n=0 Manual reset n=1 Auto reset
Alarm History Clear	OAR	OAR	
Alarm Picture Search	SAS:nnd (:p)	SAS	n=01 Skip number (fixed) d=F Search later d=B Search older p=L Search and PLAY p=A Search and PAUSE

Setup Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Cursor Moves	DCR:n1n2	DCR	n1=A Right n1=C Upward n1=E Left n1=G Downward n2=1 Move a step n2=2 Move multi steps n1n2=PD Move to lower layer n1n2=P+ Move to upper layer n1n2=P- Turn a newer page n1n2=PU Turn an older page
Key Lock	MKL:n	MKL	n=0 Lock OFF n=1 Lock ON
Recording Event Setup	MRM:n	MRM	n=0 Normal recording n=1 Internal timer recording n=2 External timer recording
Summer Time Setup	MST:n	MST	n=0 Standard time n=1 Summer time
Setup	MSU:n	MSU:n	n=0 End setup n=1 Begin setup
Date&Time Setup	TSU:yyyymmddhhnn	TSU	yyyy=Year mm=Month dd=Day hh=Hour (24-hour system) nn=Minute

Miscellaneous Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
OSD Show/Hide	DIN:n	DIN	n=+ Toggle n=0 Hidden n=1 Shown
Communication Check	RCK	RCK	
Time&Date Search	ZTS:yyyymmddhhnnss	ZTS	yyyy=Year mm=Month dd=Day hh=Hour (24-hour system) nn=Minute ss=Second

Data Log Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Log Total Size Inquiry	ILB:k	ILB:k:bbbbbb	k=0 Alarm log bbb=001 to 099 (in decimal)
Log Erase	ILC:n	ILC:n	n=0 Alarm log n=1 System log
Log Recorded Size Inquiry	ILQ:k	ILQ:k:bbbbbb:dddd:(:E)	k=0 Alarm log bbbbbb=00001 - 00999 (Oldest log) dddd=00001 - 00999 (Size of log) E=Overwrite
Log Readout	ILR:k:sss:mmm	ILR:k:<log data s1>s1 <log data s2>s2 <log data sn>F	k=0 Alarm log sss=001-2 000 Start Address mmm=001-100 Decimal # of log <log data sn>=yyyymmddhhnnss sn=0-9 and F Cyclic number (F is put at data end)

Media Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Disk End Notice Setup	MDE:n	MDE	n=0 End is not notified n=1 End is notified
Disk End Notice		HDE	

Inquiry

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Remaining Size Inquiry	QHR	QHR:nnn	nnn=000-100 Decimal %
ID Inquiry	QID	QID:WJ-HD200	
Key Lock Status Inquiry	QKM	QKM:n	n=0 Lock OFF n=1 Lock ON
Alarm Info Inquiry	QLD:n	QLD:n (Alarm Information)	In Transmission command: n=0 Event report n=1 Date&time report In Response command: n=0 No alarm event n=1 Alarm has been reset n=2 Alarm activated k=0 VMD n=2 PC alarm Alarm Information: k1:y1y1m1m1d1d1h1h1n1n1s1s1: k2:y2y2m2m2d2d2h2h2n2n2s2s2:...
Status Inquiry	QSR	QSR: [status1]:[status2]:...[status11]	mad:0 Alarm suppression On mad:1 Alarm suppression Off mkl:1 Button locked mkl:0 Button unlocked msu:1 Setup operation msu:0 Normal operation oms:mmmm Monitor in operation ocs:mmmm Camera in operation otc:n n=0 4a, 4b (Quad) n=2 9SCREEN oqt:tt:nmm Sequence running din:n OSD show/hide oae1 Alarm Log Displayed oae:0 alarm Log Hidden osp:n n=P Play Stop n=R Recording Stop opl Playback opa Pause osf: 0F-5F, 0S, 1S Refer to osf. osr:n Refer to osf osp: Pause ozm: m EL-zoom status
Software Version Inquiry	QRV	QRV: (Version Numbers)	System version number

■ HDD Maintenance

● When to Maintain HDD

HDD maintenance is required in the following cases.

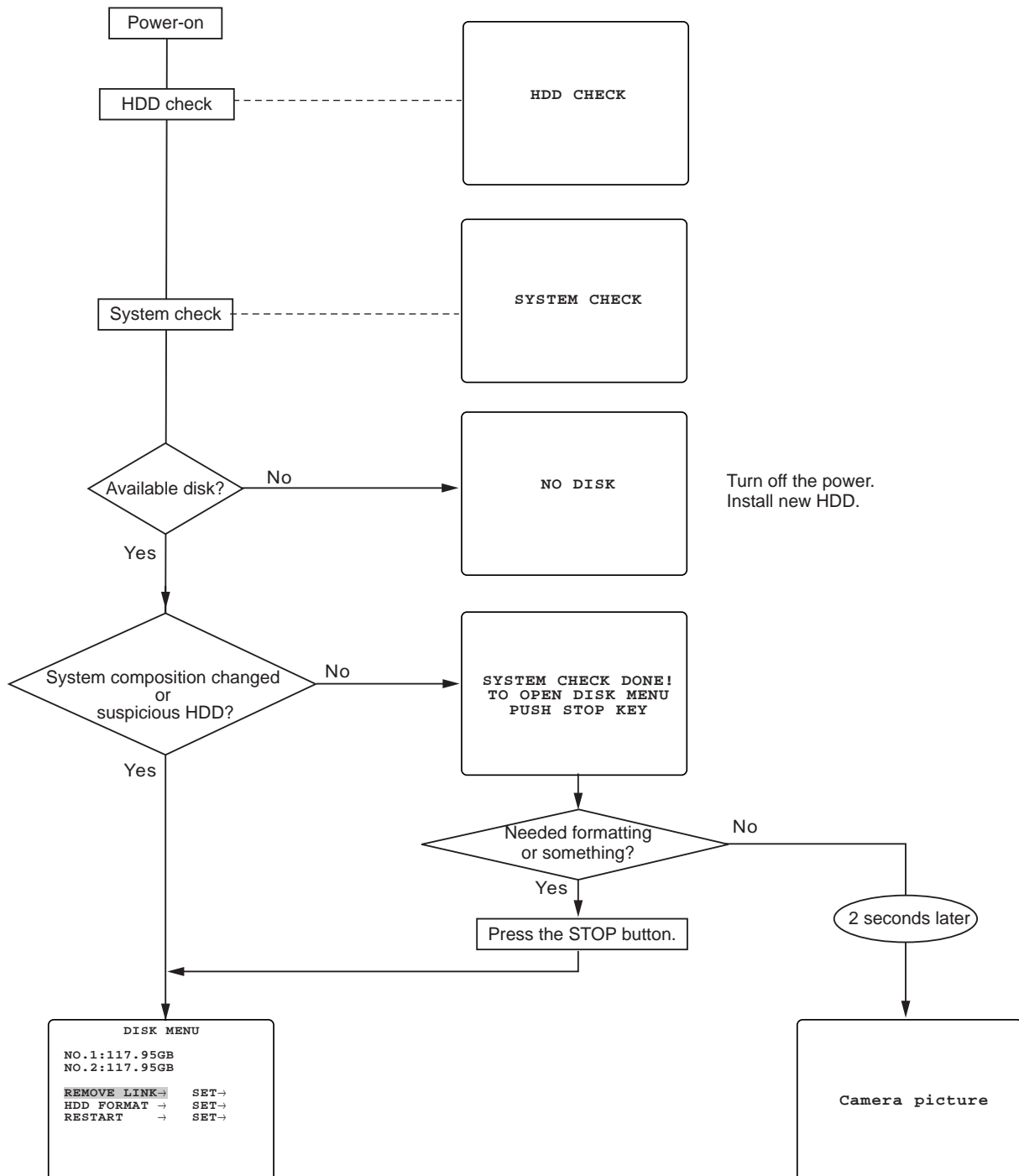
- When FULL indicator lights up
- When ERROR indicator lights up
- When an optional hard disk is added
- When you wish to format the HDD or to remove link
- When HDD reaches its life time (around 30 000 hours, displayed in the SYSTEM INFO window)

● Who to Maintain HDD

Caution: Addition, replacement, and other maintenance activities for HDD should be performed by qualified service personnel.

● Power-on Procedures

After power-on, the recorder confirms the HDD status and displays corresponding messages on the monitor.



● When Full Indicator is Lit (Resetting Disk End)

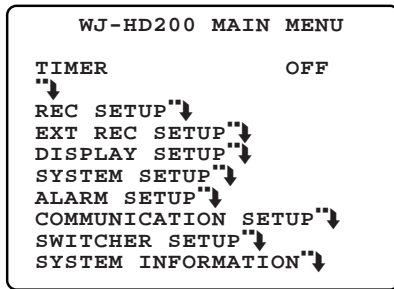
● FULL Indicator

The FULL indicator will light up when STOP is set to DISK END MODE, provided that the disk space nears the end.

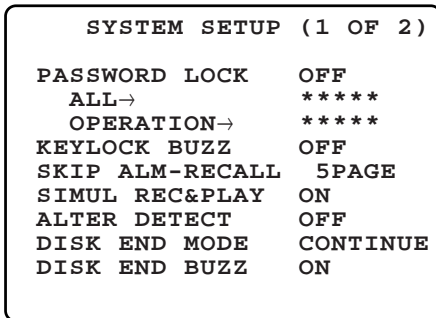
To reset it, obey the following.

● DISK END Setup

1. Hold down the [STOP] button for 2 seconds to open the MAIN MENU.



2. Select SYSTEM SETUP, and press the JogDial to open the SYSTEM SETUP menu.



3. Move the cursor to DISK END MODE, and rotate the JogDial to select CONTINUE. Then press the JogDial.

STOP: Stops recording at the disk end.

CONTINUE: Overwrites from the start of the disk.

4. Press the [STOP] button to return to the MAIN MENU.
5. Hold down the [STOP] button for 2 seconds to return to normal operations.
The recorder starts operating in the continue mode for disk end.

If you wish the recorder to revert to STOP for DISK END MODE, repeat above steps 1 through 5, except selecting STOP in the step 3.

● When Error Indicator is Lit

Refer to your dealer for servicing when this happens.

● HDD Check

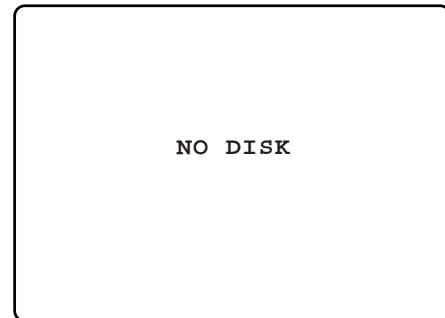
The recorder checks the hard disk when the recorder is turned on, or when the HDD CHECK time specified in the menu setup comes during operation.

The recorder warns you of an error as follows, if detected.

Error indicator blinks.

Warning Out terminal on the rear panel turns active.

"NO DISK" will appear when there is no disk installed in the recorder.



When this happens, turn off the power. New disk(s) should be installed on the recorder, referring to INSTALLATION.

● When Error Detected

1. Turn off the recorder, and turn it on again. It will perform as follows.

DISK MENU is displayed.

Error indicator blinks.

Buzzer beeps every 5 seconds.

2. Press any buttons other than [STOP] to stop the indicator blinking and buzzer beep.
3. See DISK MENU on the next page for further operations.

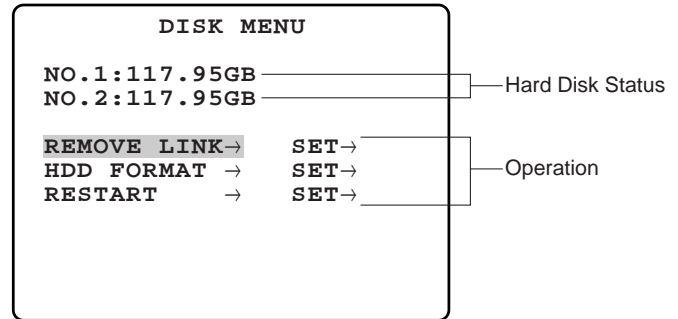
● DISK MENU

● Disk Menu

The menu appears if the hard disk error is found during power-up.

The buzzer beeps every 5 seconds, and ERROR indicator turns off.

Press buttons other than [STOP] to mute buzzer beep.



Hard disk status and required operation are shown in the table.

Abbreviation	Status	Required	Note
Capacity	Normal status	–	
ERR	Writing error	Format, remove link ,or replace HDD if erred even after formatting.	Abbreviation SYS appears in SYSTEM LOG when indicating a writing error.
	LOST or * status was left for five minutes.	Same as above.	
*	Awaiting format	Format	Replaced HDD has been not formatted yet.
	HDD error	Replace HDD if erred even after formatting.	Replaced HDD malfunctions.
	HDD logically removed	Remove HDD to add a new one, or reconnect.	Appears only when manually opening DISK MENU.
LOST	HDD physically removed	Remove link, or add a new HDD.	
ADD	HDD added, and awaiting format	Format	
–	Previous time and this time, HDD logically removed		REMOVE LINK command has been previously carried out .

You can implement necessary operation from among them.

REMOVE LINK: Removes logically the HDD link.

HDD FORMAT: Formats the HDD.

RESTART: Closes the menu, and returns to normal operation.

The menu can also be displayed manually when you need to format HDD, or to remove the logical link.

1. Turn off the power of the recorder once, and turn it on again.
The multi-screen monitor displays a message “SYSTEM CHECK DONE! TO OPEN DISK MENU, PUSH STOP KEY”.
2. Press the [STOP] button.
The DISK MENU opens.
3. Select any of REMOVE LINK, HDD FORMAT, or RESTART.

Auto-remove

When no button is pressed for 5 minutes after opening the DISK MENU, The recorder will logically remove the disk that meets any conditions below.

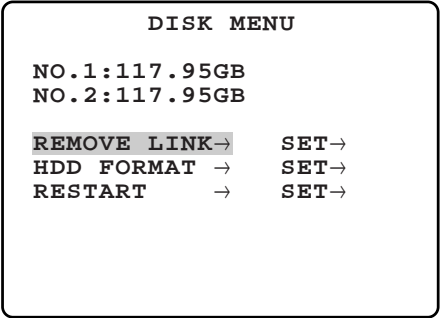
- An HDD has been categorized in “ * ”, “LOST”, or “ERR”.
- Restart was repeated 3 times due to writing error.

● **Removing Logical Link (REMOVE LINK)**

This command logically disconnects the erred HDD from the recorder, applicable to the HDD with status conditions of *, ERR, or LOST.

You may use this command before physically removing the erred HDD, or when you continue to operate the system after logically removing the erred HDD.

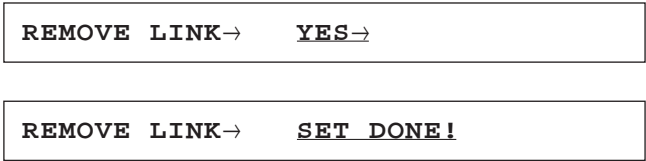
- 1. Display the DISK MENU window.



- 2. Move the cursor to REMOVE LINK.
- 3. Select YES with the JogDial, and press the JogDial.

YES: Removes logically the erred HDD.

When **YES** is selected, the display YES will turn to SET DONE for 5 seconds, and the window will return to normal operation.



When the [STOP] button is pressed, the window returns to that of step 1.
Select RESTART to return to normal operation.

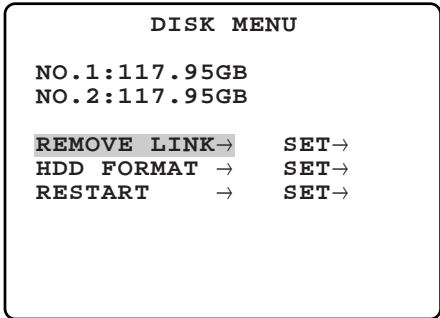
Note: The window of step 1 appears following the "ERROR" message when this command is used in the conditions below:
A single HDD or no HDD exists.
Both of HDD malfunction.

● **Formatting HDD (HDD FORMAT)**

This command initializes the HDD format, applicable to the HDD with status conditions of *, ERR, or ADD.

Caution: Formatting is an irreversible procedure. We strongly recommend either way, before formatting, that you save the recorded data into the server via the network, or you save the data in VCR tapes via the REC OUT terminal.

- 1. Display the DISK MENU window.



- 2. Move the cursor to HDD FORMAT, and press the JogDial.
The password prompt appears.



- 3. Enter the ALL password using the CAM SELECT button 1 through 8. The default password is 12345.



The HDD selection will be available if the correct password is entered.

- 4. Rotate the JogDial to select the HDD you wish to format, and press the JogDial.

1: Formats HDD #1.
2: Formats HDD #2.
ALL: Formats HDD #1 and #2.

The window confirms that you format the HDD, or not.

5. Select YES or NO rotating the JogDial, and press the JogDial.

YES: Carries out formatting. Wait until it ends.

When **YES** is selected, the display will turn to NOW FORMATTING. It will change to HDD FORMAT → SET DONE when formatting is completed.

NOW FORMATTING

HDD FORMAT →SET DONE!

When the [STOP] button is pressed, the window returns to that of step 1.

Select RESTART to return to normal operation.

● Restarting (RESTART)

This command closes the DISK MENU, and returns to normal operation.

1. Display the DISK MENU.

DISK MENU

NO.1:117.95GB
NO.2:117.95GB

REMOVE LINK→ **SET→**
HDD FORMAT → **SET→**
RESTART → **SET→**

2. Move the cursor to RESTART.

RESTART → **SET→**

Confirmation is displayed.

3. Select YES or NO rotating the JogDial, and press the JogDial.

RESTART → **YES→**

YES: Restarts the system.

Note: After YES is selected and the system is restarted, the DISK MENU may be displayed again provided that any change is found while restarting. Implement the RESTART command again.

■ HTTP Download and Viewing Images

When accessing the WJ-HD200 from the browser, and the DOWNLOAD button is clicked in playback, the image data and viewer software are downloaded as an “exe” file to your PC.



1. Move the file to an appropriate folder.

2. Double-click the file to expand it to the following.

Image file (.jpg)
play.html
thumb.html
index.html

Expanded images can be displayed by executing “index.html”. Using other applications may display the image with a vertically half size.

Note: Files play.html or thumb.html cannot be used alone.

3. Display “index.html” using the web browser.

SKIP: Jumps the number of the thumbnails.

TOP: Returns to the top page.

PREV: Returns to the previous page.

NEXT: Goes to the next page.

LAST: Jumps to the last page.

Frame No.: Indicates the frame number of the displayed image.

PAUSE: Pauses the image display.

SPEED: Indicates the playback speed.

PLAY: Starts playing back in ascending order of the file name.

STEP<<: Pauses after returning a frame.

STEP>>: Pauses after forwarding a frame.

REW JOG: Changes the reverse-playback speed by clicking.

FF JOG: Changes the forward-playback speed by clicking.

■ Mail Contents

The recorder sends mails to the specified addresses when SEND MAIL is set to ON. A mail contains the following information.

WJ-HD200(Sender IP Address) STATUS REPORT

DATE : Jan-21-03 00:00:00

STATUS : Abbreviated Cause

Abbreviation	Cause
THERMAL ERROR	Out of operating temperature
DISK WARNING OF TYPE?	S.M.A.R.T. detected error on HDD. Disk type? MASTER: Error on HDD1 SLAVE: Error on HDD2
HDD CAPACITY REMAINS **%	Warning on remaining HDD capacity (**%). A mail is sent when the remaining capacity is lowered the preset volume for HDD FULL. Until resetting DISK END status, a mail is sent every time the capacity reduces by 1 %. Remaining capacity less than 1% will be rounded to 0%.
HDD IS FULL	Resetting the DISK END status is needed to resume recording.
DISK TYPE? IS LOGICALLY REMOVED	The type of disk is failed and logically removed. Disk type? MASTER: Error on HDD1 SLAVE: Error on HDD2
VIDEO LOSS nCH	Video loss is detected on the channel "n". Repair the camera or cable disconnection.
UNDEFINED ERROR	Errors other than above took place.

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